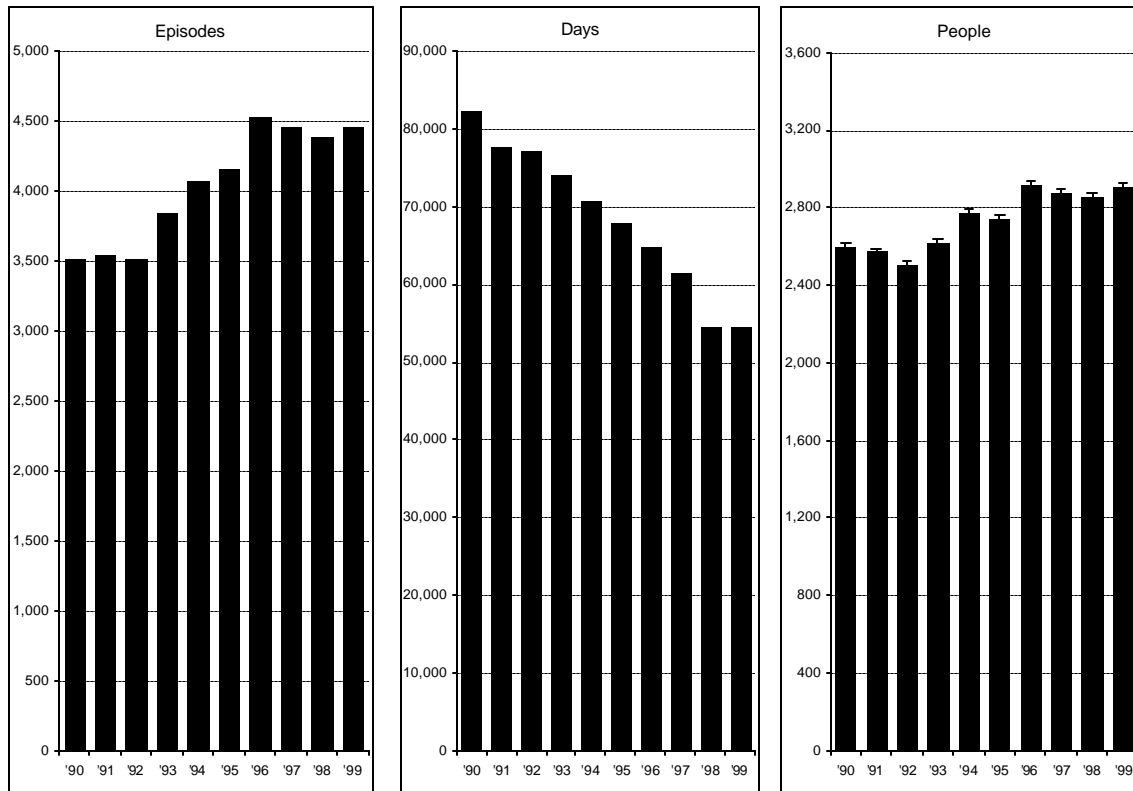


INPATIENT DATA BOOK

INPATIENT BEHAVIORAL HEALTH CARE SERVICES Provided To Vermont Residents During 1990 - 1999



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INTRODUCTION

This report provides a statistical overview of the utilization of inpatient facilities by Vermont residents for psychiatric and substance abuse services during 1990 through 1999. Episodes of hospitalization that occurred in the Vermont State Hospital, The Brattleboro Retreat, Veterans Administration Hospitals in Vermont and Massachusetts, and in general hospitals in Vermont, New Hampshire, Massachusetts, and New York are included in this overview.

The tables that follow provide detailed information on patterns of inpatient behavioral health care services in Vermont. Information on episodes of hospitalization, patient days, and unduplicated numbers of people served are presented as raw counts and as per-capita rates. This information is provided for the state's diverse geographical regions, and for each of six categories of facilities. Complete utilization profiles are presented for mental health and for substance abuse treatment, for young people and for adults, in addition to the detailed profile of overall utilization of inpatient behavioral health care services.

A detailed methodological appendix provides information on the data bases used to prepare this report and the methodology for deriving unduplicated counts of people served without reference to unique person identifiers.

HIGHLIGHTS

There were significant changes in overall patterns of inpatient behavioral health care during this period. A substantial increase in the number of episodes of inpatient care (up by more than 26%) was accompanied by a substantial decrease (down by 34%) in the number of days of inpatient care, while the number of people receiving care only changed slightly (up by 6%).

There were significant and consistent differences among counties in the rate of inpatient behavioral health care utilization throughout this time period. Many individuals were hospitalized in more than one type of facility during a year. During 1999, more than one-quarter of Brattleboro Retreat patients and more than one-third of Vermont State hospital patients were also served in another inpatient facility. Men and women had similar hospitalization rates, overall, although different types of facility had very different representation of the genders. People in the 36-50 age group had the highest hospitalization rates in every year but two. Rates of hospitalization of children and adolescents grew at a faster rate than for adults.

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Episodes of Hospitalization
for Behavioral Health Care
Vermont Residents: 1990 - 1999

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	3,523	3,550	3,515	3,846	4,079	4,164	4,528	4,464	4,382	4,459
VT General Hospitals	2,060	1,986	2,020	2,069	2,231	2,142	2,514	2,576	2,451	2,586
Vermont State Hospital	488	501	401	382	405	381	354	380	309	293
Brattleboro Retreat	226	242	256	346	377	519	639	678	761	712
VA Hospital - WRJ	218	224	235	241	260	254	236	236	236	255
New Hampshire Hospitals	494	553	504	662	703	730	679	482	500	503
Other Out-of-State Hospitals	37	44	99	146	103	138	106	112	125	110

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	3,523	3,550	3,515	3,846	4,079	4,164	4,528	4,464	4,382	4,459
Addison	113	114	124	148	156	153	199	196	168	254
Bennington	219	250	229	290	296	345	332	233	231	238
Caledonia	150	154	153	188	159	181	183	168	151	145
Chittenden	818	824	706	760	838	759	754	834	811	752
Essex	31	33	35	35	33	36	44	37	42	37
Franklin/Grand Isle	155	168	192	186	185	151	220	190	172	165
Lamoille	105	118	95	103	100	100	108	120	120	145
Orange	159	175	179	210	161	188	196	167	152	169
Orleans	165	162	146	186	196	165	158	164	142	192
Rutland	364	389	394	367	412	450	446	471	595	634
Washington	491	439	489	450	521	491	606	630	481	474
Windham	273	276	316	388	420	525	637	676	699	605
Windsor	463	438	454	522	585	595	624	554	590	578
Unknown	17	10	3	13	17	25	21	24	28	71

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Table 1-2
Episodes of Hospitalization Per 100,000 Population
for Behavioral Health Care
Vermont Residents: 1990 - 1999

Episodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	626	627	617	668	703	712	769	758	742	751
VT General Hospitals	366	351	355	359	385	366	427	437	415	436
Vermont State Hospital	87	88	70	66	70	65	60	65	52	49
Brattleboro Retreat	40	43	45	60	65	89	109	115	129	120
VA Hospital - WRJ	39	40	41	42	45	43	40	40	40	43
New Hampshire Hospitals	88	98	88	115	121	125	115	82	85	85
Other Out-of-State Hospitals	7	8	17	25	18	24	18	19	21	19

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	626	627	617	668	703	712	769	758	742	751
Addison	343	339	372	422	450	435	569	561	481	724
Bennington	611	702	645	811	818	960	924	652	647	663
Caledonia	539	553	547	667	556	635	636	586	524	498
Chittenden	621	618	529	556	604	538	532	587	565	522
Essex	484	499	532	528	510	554	697	596	679	573
Franklin/Grand Isle	342	368	407	393	386	312	446	384	345	326
Lamoille	532	587	462	500	474	469	495	547	554	660
Orange	608	675	693	802	606	703	725	620	563	625
Orleans	686	671	591	755	785	655	617	639	549	738
Rutland	586	619	628	584	659	721	715	753	947	1,013
Washington	894	789	878	804	927	868	1,068	1,110	852	840
Windham	656	664	746	915	993	1,236	1,482	1,567	1,636	1,407
Windsor	857	816	842	979	1,084	1,095	1,134	1,008	1,067	1,043
Unknown	3	2	1	2	3	4	4	4	5	12

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 1-3
Patient Days
for Behavioral Health Care
Vermont Residents: 1990 - 1999

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	82,315	77,816	77,269	73,955	70,786	67,986	64,919	61,548	54,548	54,418
VT General Hospitals	22,835	22,066	22,287	21,291	20,962	19,498	20,034	19,781	18,114	20,054
Vermont State Hospital	41,265	37,143	35,130	31,602	27,778	27,059	23,452	23,827	19,961	19,815
Brattleboro Retreat	7,165	6,288	5,538	7,265	7,589	9,735	12,373	11,709	10,635	8,782
VA Hospital - WRJ	3,442	3,244	5,389	3,474	3,792	3,667	3,086	1,850	1,484	1,493
New Hampshire Hospitals	7,106	8,523	7,068	8,859	8,482	6,058	4,968	2,990	2,821	3,099
Other Out-of-State Hospitals	502	552	1,857	1,464	2,183	1,969	1,006	1,391	1,533	1,175

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	82,315	77,816	77,269	73,955	70,786	67,986	64,919	61,548	54,548	54,418
Addison	1,988	1,695	2,329	2,750	2,278	2,414	3,051	2,918	2,041	2,768
Bennington	3,871	4,167	3,740	4,137	4,570	4,560	4,048	3,728	2,680	2,443
Caledonia	2,934	3,122	2,672	2,333	2,173	1,946	2,049	1,964	1,524	1,473
Chittenden	18,581	19,957	18,558	18,181	16,940	16,660	13,617	14,943	14,605	14,232
Essex	293	507	418	418	751	364	521	504	621	758
Franklin/Grand Isle	3,755	3,994	5,704	3,790	4,244	3,024	3,962	3,251	2,622	3,142
Lamoille	2,844	2,745	1,838	2,334	1,841	1,210	1,328	1,445	1,676	1,816
Orange	2,760	2,872	3,441	3,015	2,171	2,213	2,629	2,030	2,112	1,940
Orleans	2,365	2,857	2,601	2,512	2,643	2,285	3,036	2,286	1,792	2,063
Rutland	6,285	5,626	5,858	5,038	5,233	6,856	5,376	4,444	4,757	4,621
Washington	19,120	15,036	14,408	12,771	12,749	11,193	10,034	9,271	6,510	5,840
Windham	6,744	6,173	8,050	8,282	6,883	7,673	8,491	7,872	7,475	6,328
Windsor	9,582	8,711	7,567	7,892	7,669	6,864	6,392	5,736	5,076	4,821
Unknown	1,193	354	85	502	641	724	385	1,156	1,057	2,173

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Table 1-4
Average Daily Census
for Behavioral Health Care
Vermont Residents: 1990 - 1999

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	226	213	211	203	194	186	177	169	149	149
VT General Hospitals	63	60	61	58	57	53	55	54	50	55
Vermont State Hospital	113	102	96	87	76	74	64	65	55	54
Brattleboro Retreat	20	17	15	20	21	27	34	32	29	24
VA Hospital - WRJ	9	9	15	10	10	10	8	5	4	4
New Hampshire Hospitals	19	23	19	24	23	17	14	8	8	8
Other Out-of-State Hospitals	1	2	5	4	6	5	3	4	4	3

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	226	213	211	203	194	186	177	169	149	149
Addison	5	5	6	8	6	7	8	8	6	8
Bennington	11	11	10	11	13	12	11	10	7	7
Caledonia	8	9	7	6	6	5	6	5	4	4
Chittenden	51	55	51	50	46	46	37	41	40	39
Essex	1	1	1	1	2	1	1	1	2	2
Franklin/Grand Isle	10	11	16	10	12	8	11	9	7	9
Lamoille	8	8	5	6	5	3	4	4	5	5
Orange	8	8	9	8	6	6	7	6	6	5
Orleans	6	8	7	7	7	6	8	6	5	6
Rutland	17	15	16	14	14	19	15	12	13	13
Washington	52	41	39	35	35	31	27	25	18	16
Windham	18	17	22	23	19	21	23	22	20	17
Windsor	26	24	21	22	21	19	17	16	14	13
Unknown	3	1	< 1	1	2	2	1	3	3	6

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Table 1-5
Average Daily Census per 100,000 Population
for Behavioral Health Care
Vermont Residents: 1990 - 1999

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	40	38	37	35	33	32	30	29	25	25
VT General Hospitals	11	11	11	10	10	9	9	9	8	9
Vermont State Hospital	20	18	17	15	13	13	11	11	9	9
Brattleboro Retreat	3	3	3	3	4	5	6	5	5	4
VA Hospital - WRJ	2	2	3	2	2	2	1	1	1	1
New Hampshire Hospitals	3	4	3	4	4	3	2	1	1	1
Other Out-of-State Hospitals	< 1	< 1	1	1	1	1	< 1	1	1	1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	40	38	37	35	33	32	30	29	25	25
Addison	17	14	19	21	18	19	24	23	16	22
Bennington	30	32	29	32	35	35	31	29	21	19
Caledonia	29	31	26	23	21	19	19	19	14	14
Chittenden	39	41	38	36	33	32	26	29	28	27
Essex	13	21	17	17	32	15	23	22	27	32
Franklin/Grand Isle	23	24	33	22	24	17	22	18	14	17
Lamoille	39	37	24	31	24	16	17	18	21	23
Orange	29	30	36	32	22	23	27	21	21	20
Orleans	27	32	29	28	29	25	32	24	19	22
Rutland	28	25	26	22	23	30	24	19	21	20
Washington	95	74	71	63	62	54	48	45	32	28
Windham	44	41	52	53	45	49	54	50	48	40
Windsor	49	44	38	41	39	35	32	29	25	24
Unknown	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 1-6
Average Length of Stay
for Behavioral Health Care
Vermont Residents: 1990 - 1999

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	23	22	22	19	17	16	14	14	12	12
VT General Hospitals	11	11	11	10	9	9	8	8	7	8
Vermont State Hospital	85	74	88	83	69	71	66	63	65	68
Brattleboro Retreat	32	26	22	21	20	19	19	17	14	12
VA Hospital - WRJ	16	14	23	14	15	14	13	8	6	6
New Hampshire Hospitals	14	15	14	13	12	8	7	6	6	6
Out-of-State Hospitals	14	13	19	10	21	14	9	12	12	11

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	23	22	22	19	17	16	14	14	12	12
Addison	18	15	19	19	15	16	15	15	12	11
Bennington	18	17	16	14	15	13	12	16	12	10
Caledonia	20	20	17	12	14	11	11	12	10	10
Chittenden	23	24	26	24	20	22	18	18	18	19
Essex	9	15	12	12	23	10	12	14	15	20
Franklin/Grand Isle	24	24	30	20	23	20	18	17	15	19
Lamoille	27	23	19	23	18	12	12	12	14	13
Orange	17	16	19	14	13	12	13	12	14	11
Orleans	14	18	18	14	13	14	19	14	13	11
Rutland	17	14	15	14	13	15	12	9	8	7
Washington	39	34	29	28	24	23	17	15	14	12
Windham	25	22	25	21	16	15	13	12	11	10
Windsor	21	20	17	15	13	12	10	10	9	8
Unknown	70	35	28	39	38	29	18	48	38	31

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Table 1-7
Unduplicated Number of People Hospitalized
for Behavioral Health Care
Vermont Residents: 1990 - 1999

Unduplicated Number of People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20
VT General Hospitals	1,672 ± 12	1,596 ± 11	1,609 ± 12	1,589 ± 11	1,652 ± 12	1,568 ± 12	1,781 ± 13	1,775 ± 13	1,717 ± 12	1,816 ± 13
Vermont State Hospital	413	428	349	323	344	330	289	314	270	266
Brattleboro Retreat	204	212	215	267	296	421	486	536	485	560
VA Hospital - WRJ	171 ± 2	174 ± 2	164 ± 2	187 ± 2	192 ± 3	200 ± 3	182 ± 3	146 ± 2	141 ± 2	147 ± 2
New Hampshire Hospitals	374 ± 3	410 ± 3	386 ± 3	495 ± 4	558 ± 5	546 ± 5	480 ± 4	374 ± 4	395 ± 3	379 ± 3
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Unduplicated Number of People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20
Addison	88 ± 1	88 ± 1	89 ± 1	114 ± 1	104 ± 1	112 ± 1	120 ± 1	130 ± 2	116 ± 1	135 ± 1
Bennington	171 ± 2	181 ± 2	165 ± 2	177 ± 2	205 ± 2	221 ± 2	232 ± 2	161 ± 1	154 ± 2	150 ± 2
Caledonia	128 ± 1	128 ± 1	124 ± 1	138 ± 2	125 ± 1	138 ± 1	123 ± 1	114 ± 1	112 ± 2	105 ± 1
Chittenden	598 ± 5	625 ± 5	544 ± 4	545 ± 4	591 ± 5	533 ± 4	546 ± 4	583 ± 5	552 ± 4	545 ± 4
Essex	23 ± 0.5	29 ± 0.6	29 ± 0.6	30 ± 0.6	25 ± 0.5	27 ± 0.6	34 ± 0.7	29 ± 1	32 ± 1	30 ± 0
Franklin/Grand Isle	125 ± 1	134 ± 1	148 ± 2	140 ± 2	149 ± 2	123 ± 1	161 ± 2	148 ± 2	132 ± 2	130 ± 1
Lamoille	86 ± 1	93 ± 1	76 ± 1	79 ± 1	72 ± 1	75 ± 1	69 ± 1	65 ± 1	81 ± 1	88 ± 1
Orange	121 ± 1	128 ± 1	119 ± 1	117 ± 1	119 ± 1	130 ± 1	136 ± 2	120 ± 1	115 ± 1	121 ± 1
Orleans	126 ± 1	116 ± 1	111 ± 1	132 ± 1	126 ± 1	118 ± 1	118 ± 1	120 ± 1	104 ± 1	143 ± 1
Rutland	301 ± 3	291 ± 3	299 ± 3	270 ± 2	304 ± 3	316 ± 3	302 ± 3	324 ± 3	411 ± 3	442 ± 3
Washington	359 ± 3	303 ± 3	334 ± 3	293 ± 3	318 ± 3	303 ± 3	344 ± 3	377 ± 4	329 ± 3	316 ± 3
Windham	207 ± 2	211 ± 2	222 ± 2	250 ± 2	300 ± 3	318 ± 3	393 ± 3	412 ± 3	421 ± 3	382 ± 3
Windsor	323 ± 3	314 ± 3	313 ± 3	377 ± 3	374 ± 3	388 ± 3	390 ± 3	345 ± 3	365 ± 3	365 ± 3
Unknown	16 ± 0.4	9 ± 0.3	3 ± 0.2	12 ± 0.3	17 ± 0.4	21 ± 0.5	18 ± 0.4	21 ± 0.4	26 ± 0.5	69 ± 3

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table 1-8
Unduplicated Number of People Hospitalized Per 100,000 Population
for Behavioral Health Care
Vermont Residents: 1990 - 1999

Unduplicated Number of People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	461 \pm 3	454 \pm 3	440 \pm 3	455 \pm 3	478 \pm 3	469 \pm 3	496 \pm 3	488 \pm 3.4	483 \pm 3	490 \pm 3
VT General Hospitals	297 \pm 2	282 \pm 2	282 \pm 2	276 \pm 2	285 \pm 2	268 \pm 2	303 \pm 2	301 \pm 2.2	291 \pm 2	306 \pm 2.2
Vermont State Hospital	73	76	61	56	59	56	49	53	46	45
Brattleboro Retreat	36	37	38	46	51	72	83	91	82	94
VA Hospital - WRJ	30 \pm 0.4	31 \pm 0.4	29 \pm 0.4	32 \pm 0.4	33 \pm 0.5	34 \pm 0.5	31 \pm 0.5	25 \pm 0.3	24 \pm 0.3	25 \pm 0.3
New Hampshire Hospitals	66 \pm 0.6	72 \pm 0.6	68 \pm 0.6	86 \pm 0.7	96 \pm 0.8	93 \pm 0.8	82 \pm 0.7	63 \pm 0.7	67 \pm 0.5	64 \pm 0.5
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Unduplicated Number of People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	461 \pm 3	454 \pm 3	440 \pm 3	455 \pm 3	478 \pm 3	469 \pm 3	496 \pm 3	488 \pm 3	483 \pm 3	490 \pm 3
Addison	268 \pm 3	263 \pm 4	268 \pm 3	326 \pm 4	301 \pm 4	320 \pm 4	344 \pm 4	372 \pm 6	332 \pm 3	383 \pm 3
Bennington	476 \pm 5	508 \pm 5	464 \pm 5	495 \pm 5	567 \pm 5	615 \pm 6	646 \pm 6	450 \pm 3	431 \pm 6	417 \pm 6
Caledonia	458 \pm 5	458 \pm 5	441 \pm 5	488 \pm 5	436 \pm 5	482 \pm 5	429 \pm 5	398 \pm 3	389 \pm 7	362 \pm 3
Chittenden	454 \pm 4	469 \pm 4	408 \pm 3	398 \pm 3	426 \pm 3	377 \pm 3	385 \pm 3	411 \pm 4	385 \pm 3	378 \pm 3
Essex	360 \pm 8	440 \pm 9	442 \pm 9	454 \pm 9	387 \pm 8	417 \pm 9	540 \pm 10	467 \pm 16	517 \pm 16	466 \pm 0
Franklin/Grand Isle	275 \pm 3	292 \pm 3	313 \pm 4	295 \pm 3	310 \pm 3	253 \pm 3	326 \pm 3	299 \pm 4	264 \pm 4	256 \pm 2
Lamoille	437 \pm 6	464 \pm 6	371 \pm 5	385 \pm 5	343 \pm 5	353 \pm 5	318 \pm 4	296 \pm 5	374 \pm 5	402 \pm 5
Orange	461 \pm 5	492 \pm 6	463 \pm 5	449 \pm 5	450 \pm 5	484 \pm 5	502 \pm 6	445 \pm 4	426 \pm 4	449 \pm 4
Orleans	522 \pm 6	483 \pm 6	451 \pm 6	534 \pm 6	503 \pm 6	470 \pm 5	459 \pm 5	467 \pm 4	402 \pm 4	548 \pm 4
Rutland	484 \pm 4	463 \pm 4	476 \pm 4	429 \pm 4	486 \pm 4	506 \pm 5	484 \pm 4	518 \pm 5	654 \pm 5	707 \pm 5
Washington	653 \pm 6	545 \pm 5	600 \pm 5	524 \pm 5	566 \pm 5	536 \pm 5	607 \pm 5	664 \pm 7	583 \pm 5	560 \pm 5
Windham	498 \pm 5	508 \pm 5	525 \pm 5	590 \pm 5	708 \pm 6	749 \pm 7	914 \pm 8	955 \pm 7	985 \pm 7	888 \pm 7
Windsor	598 \pm 6	585 \pm 5	580 \pm 5	706 \pm 6	693 \pm 6	714 \pm 6	709 \pm 6	628 \pm 5	660 \pm 5	658 \pm 5
Unknown	3 \pm 0.1	2 \pm 0.1	1 \pm <.1	2 \pm 0.1	3 \pm 0.1	4 \pm 4	3 \pm 0.1	4 \pm 0.1	4 \pm 0.1	12 \pm 0.5

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 2-1
Episodes of Hospitalization
for Mental Illness
Vermont Residents: 1990 - 1999

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,815	2,886	2,970	3,350	3,648	3,769	4,185	3,975	3,887	4,190
VT General Hospitals	1,640	1,571	1,712	1,831	2,020	1,975	2,343	2,404	2,294	2,501
Vermont State Hospital	428	471	393	366	374	349	347	372	305	293
Brattleboro Retreat	150	169	190	286	318	442	556	474	535	572
VA Hospital - WRJ	180	187	191	187	205	211	201	194	180	229
New Hampshire Hospitals	386	450	414	569	655	691	648	448	476	496
Other Out-of-State Hospitals	31	38	70	111	76	101	90	83	97	99

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,815	2,885	2,970	3,350	3,648	3,769	4,185	3,975	3,887	4,190
Addison	73	92	106	138	139	146	184	173	153	244
Bennington	175	205	197	239	269	291	307	193	199	213
Caledonia	123	128	122	158	145	166	163	153	134	141
Chittenden	655	645	601	684	752	699	700	759	751	713
Essex	25	32	29	31	33	33	41	34	34	34
Franklin/Grand Isle	116	138	165	158	167	138	194	178	154	162
Lamoille	85	95	83	91	93	92	93	110	102	139
Orange	132	148	154	178	142	170	188	151	142	167
Orleans	129	140	127	162	186	150	148	147	132	187
Rutland	286	315	325	316	337	393	397	370	498	568
Washington	429	379	431	409	486	457	583	599	449	455
Windham	210	197	263	336	371	476	587	580	595	547
Windsor	362	362	364	438	514	536	579	508	518	551
Unknown	15	9	3	12	14	22	21	20	26	69

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 2-2
Episodes of Hospitalization Per 100,000 Population
for Mental Illness
Vermont Residents: 1990 - 1999

Episodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	500	509	521	582	629	645	711	675	658	706
VT General Hospitals	291	277	300	318	348	338	398	408	388	421
Vermont State Hospital	76	83	69	64	64	60	59	63	52	49
Brattleboro Retreat	27	30	33	50	55	76	94	80	91	96
VA Hospital - WRJ	32	33	34	32	35	36	34	33	30	39
New Hampshire Hospitals	69	79	73	99	113	118	110	76	81	84
Other Out-of-State Hospitals	6	7	12	19	13	17	15	14	16	17

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	500	509	521	582	629	645	711	675	658	706
Addison	222	274	318	394	401	415	526	495	438	695
Bennington	488	576	555	669	744	810	855	540	557	593
Caledonia	442	460	436	560	507	582	566	534	465	484
Chittenden	497	484	450	500	542	495	494	535	523	495
Essex	390	484	441	467	510	508	650	548	549	527
Franklin/Grand Isle	256	302	350	334	348	285	394	360	308	320
Lamoille	431	473	404	441	441	432	427	501	471	633
Orange	505	571	596	680	534	635	695	561	526	617
Orleans	536	580	514	657	745	596	578	572	510	719
Rutland	460	501	518	503	539	630	636	592	793	907
Washington	781	681	774	731	865	808	1,028	1,056	795	807
Windham	505	474	621	792	877	1,120	1,366	1,345	1,392	1,272
Windsor	670	674	675	821	953	986	1,053	924	937	994
Unknown	3	2	1	2	2	4	4	3	4	12

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 2-3
Patient Days
for Mental Illness
Vermont Residents: 1990 - 1999

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	73,926	70,917	71,465	69,162	66,701	64,711	62,123	57,342	50,795	52,921
VT General Hospitals	19,532	19,121	20,205	19,925	19,915	18,898	19,402	19,037	17,453	19,816
Vermont State Hospital	39,554	36,151	34,686	30,988	26,468	25,967	23,324	23,743	19,923	19,815
Brattleboro Retreat	5,343	4,808	4,037	6,313	6,674	8,798	10,770	8,991	8,041	7,650
VA Hospital - WRJ	3,062	3,032	4,867	2,922	3,520	3,469	2,938	1,698	1,309	1,421
New Hampshire Hospitals	5,962	7,323	6,121	7,819	8,203	5,909	4,843	2,882	2,763	3,075
Other Out-of-State Hospitals	473	482	1,549	1,195	1,921	1,670	846	991	1,306	1,144

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	73,926	70,917	71,465	69,162	66,701	64,711	62,123	57,342	50,795	52,921
Addison	1,445	1,452	2,176	2,628	2,196	2,316	2,880	2,754	1,960	2,699
Bennington	3,484	3,541	3,113	3,695	4,408	4,256	3,929	3,360	2,500	2,275
Caledonia	2,680	2,849	2,445	2,172	2,076	1,867	1,818	1,840	1,405	1,438
Chittenden	16,308	17,840	17,180	17,018	15,815	15,854	13,133	14,306	13,741	13,990
Essex	253	495	351	342	751	329	513	375	588	750
Franklin/Grand Isle	3,359	3,620	5,367	3,511	3,815	2,934	3,633	3,161	2,498	3,117
Lamoille	2,646	2,390	1,738	2,172	1,740	1,180	1,255	1,388	1,572	1,800
Orange	2,475	2,575	3,244	2,819	1,957	1,996	2,608	1,892	2,048	1,862
Orleans	1,950	2,702	2,489	2,312	2,584	2,116	2,952	2,123	1,691	2,047
Rutland	5,565	5,079	5,411	4,739	4,758	6,493	4,886	3,728	4,214	4,364
Washington	18,217	14,585	13,853	12,395	12,442	10,894	9,923	9,079	6,106	5,764
Windham	5,937	5,458	7,144	7,747	6,431	7,300	8,073	6,724	6,643	5,945
Windsor	8,424	7,995	6,869	7,162	7,177	6,500	6,135	5,495	4,778	4,710
Unknown	1,183	336	85	450	551	676	385	1,117	1,051	2,160

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 2-4
Average Daily Census
for Mental Illness
Vermont Residents: 1990 - 1999

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	203	194	195	189	183	177	170	157	139	145
VT General Hospitals	54	52	55	55	55	52	53	52	48	54
Vermont State Hospital	108	99	95	85	73	71	64	65	55	54
Brattleboro Retreat	15	13	11	17	18	24	29	25	22	21
VA Hospital - WRJ	8	8	13	8	10	10	8	5	4	4
New Hampshire Hospitals	16	20	17	21	22	16	13	8	8	8
Other Out-of-State Hospitals	1	1	4	3	5	5	2	3	4	3

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	203	194	195	189	183	177	170	157	139	145
Addison	4	4	6	7	6	6	8	8	5	7
Bennington	10	10	9	10	12	12	11	9	7	6
Caledonia	7	8	7	6	6	5	5	5	4	4
Chittenden	45	49	47	47	43	43	36	39	38	38
Essex	1	1	1	1	2	1	1	1	2	2
Franklin/Grand Isle	9	10	15	10	10	8	10	9	7	9
Lamoille	7	7	5	6	5	3	3	4	4	5
Orange	7	7	9	8	5	5	7	5	6	5
Orleans	5	7	7	6	7	6	8	6	5	6
Rutland	15	14	15	13	13	18	13	10	12	12
Washington	50	40	38	34	34	30	27	25	17	16
Windham	16	15	20	21	18	20	22	18	18	16
Windsor	23	22	19	20	20	18	17	15	13	13
Unknown	3	1	< 1	1	2	2	1	3	3	6

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 2-5
Average Daily Census per 100,000 Population
for Mental Illness
Vermont Residents: 1990 - 1999

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	36	34	34	33	31	30	29	27	24	24
VT General Hospitals	10	9	10	9	9	9	9	9	8	9
Vermont State Hospital	19	17	17	15	12	12	11	11	9	9
Brattleboro Retreat	3	2	2	3	3	4	5	4	4	4
VA Hospital - WRJ	1	1	2	1	2	2	1	1	1	1
New Hampshire Hospitals	3	4	3	4	4	3	2	1	1	1
Other Out-of-State Hospitals	< 1	< 1	1	1	1	1	< 1	< 1	1	1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	36	34	34	33	31	30	29	27	24	24
Addison	12	12	18	21	17	18	22	22	15	21
Bennington	27	27	24	28	33	32	30	26	19	17
Caledonia	26	28	24	21	20	18	17	18	13	14
Chittenden	34	37	35	34	31	31	25	28	26	27
Essex	11	21	15	14	32	14	22	17	26	32
Franklin/Grand Isle	20	22	31	20	22	17	20	18	14	17
Lamoille	37	33	23	29	23	15	16	17	20	22
Orange	26	27	34	30	20	20	26	19	21	19
Orleans	22	31	28	26	28	23	31	23	18	22
Rutland	25	22	24	21	21	29	21	16	18	19
Washington	91	72	68	61	61	53	48	44	30	28
Windham	39	36	46	50	42	47	51	43	43	38
Windsor	43	41	35	37	36	33	30	27	24	23
Unknown	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 2-6
Average Length of Stay
for Mental Illness
Vermont Residents: 1990 - 1999

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	26	25	24	21	18	17	15	14	13	13
VT General Hospitals	12	12	12	11	10	10	8	8	8	8
Vermont State Hospital	92	77	88	85	71	74	67	64	65	68
Brattleboro Retreat	36	28	21	22	21	20	19	19	15	13
VA Hospital - WRJ	17	16	25	16	17	16	15	9	7	6
New Hampshire Hospitals	15	16	15	14	13	9	7	6	6	6
Other Out-of-State Hospitals	15	13	22	11	25	17	9	12	13	12

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	26	25	24	21	18	17	15	14	13	13
Addison	20	16	21	19	16	16	16	16	13	11
Bennington	20	17	16	15	16	15	13	17	13	11
Caledonia	22	22	20	14	14	11	11	12	10	10
Chittenden	25	28	29	25	21	23	19	19	18	20
Essex	10	15	12	11	23	10	13	11	17	22
Franklin/Grand Isle	29	26	33	22	23	21	19	18	16	19
Lamoille	31	25	21	24	19	13	13	13	15	13
Orange	19	17	21	16	14	12	14	13	14	11
Orleans	15	19	20	14	14	14	20	14	13	11
Rutland	19	16	17	15	14	17	12	10	8	8
Washington	42	38	32	30	26	24	17	15	14	13
Windham	28	28	27	23	17	15	14	12	11	11
Windsor	23	22	19	16	14	12	11	11	9	9
Unknown	79	37	28	38	39	31	18	56	40	31

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 2-7
Unduplicated Number of People Hospitalized
for Mental Illness
Vermont Residents: 1990 - 1999

Unduplicated Number of People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,050 \pm 14	2,067 \pm 15	2,136 \pm 15	2,286 \pm 16	2,502 \pm 17	2,489 \pm 17	2,688 \pm 18	2,569 \pm 18	2,576 \pm 18	2,772 \pm 19
VT General Hospitals	1,320 \pm 9	1,259 \pm 9	1,362 \pm 9	1,401 \pm 10	1,484 \pm 11	1,434 \pm 11	1,643 \pm 12	1,642 \pm 12	1,613 \pm 12	1,763 \pm 13
Vermont State Hospital	360	398	341	307	315	298	282	306	267	266
Brattleboro Retreat	136	148	163	222	248	358	432	389	374	468
VA Hospital - WRJ	139 \pm 2	143 \pm 2	138 \pm 2	147 \pm 2	159 \pm 2	172 \pm 3	157 \pm 3	127 \pm 2	112 \pm 2	138 \pm 2
New Hampshire Hospitals	289 \pm 3	325 \pm 3	318 \pm 3	425 \pm 3	518 \pm 4	519 \pm 4	455 \pm 4	345 \pm 3	377 \pm 4	375 \pm 3
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Unduplicated Number of People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,050 \pm 14	2,067 \pm 15	2,136 \pm 15	2,286 \pm 16	2,502 \pm 17	2,489 \pm 17	2,688 \pm 18	2,569 \pm 18	2,576 \pm 18	2,772 \pm 19
Addison	58 \pm 1	70 \pm 1	75 \pm 1	105 \pm 1	90 \pm 1	109 \pm 1	110 \pm 1	111 \pm 1	108 \pm 1	128 \pm 1
Bennington	133 \pm 1	145 \pm 2	146 \pm 2	148 \pm 2	189 \pm 2	190 \pm 2	216 \pm 2	132 \pm 2	131 \pm 2	133 \pm 1
Caledonia	102 \pm 2	106 \pm 1	98 \pm 1	114 \pm 1	113 \pm 1	127 \pm 2	106 \pm 1	103 \pm 1	100 \pm 1	102 \pm 1
Chittenden	475 \pm 4	488 \pm 4	460 \pm 4	495 \pm 4	526 \pm 5	490 \pm 4	507 \pm 4	529 \pm 5	521 \pm 5	517 \pm 4
Essex	19 \pm 0.4	28 \pm 0.5	25 \pm 0.5	27 \pm 0.5	25 \pm 0.5	25 \pm 0.5	31 \pm 0.5	26 \pm 0.5	25 \pm 0.5	28 \pm 1.0
Franklin/Grand Isle	93 \pm 1	111 \pm 1	129 \pm 2	118 \pm 2	137 \pm 2	110 \pm 1	145 \pm 2	137 \pm 2	118 \pm 2	127 \pm 1
Lamoille	68 \pm 1	78 \pm 1	66 \pm 1	74 \pm 1	66 \pm 1	69 \pm 1	60 \pm 1	62 \pm 1	70 \pm 1	87 \pm 1
Orange	97 \pm 1	105 \pm 1	101 \pm 1	103 \pm 1	105 \pm 1	114 \pm 1	132 \pm 2	109 \pm 1	108 \pm 1	120 \pm 1
Orleans	94 \pm 1	95 \pm 1	96 \pm 1	115 \pm 1	122 \pm 2	108 \pm 1	112 \pm 1	111 \pm 1	95 \pm 1	140 \pm 1
Rutland	238 \pm 2	232 \pm 2	247 \pm 2	231 \pm 2	256 \pm 2	277 \pm 3	267 \pm 2	267 \pm 2	359 \pm 4	407 \pm 3
Washington	307 \pm 3	254 \pm 2	298 \pm 3	265 \pm 3	290 \pm 3	282 \pm 3	325 \pm 3	357 \pm 3	305 \pm 3	304 \pm 3
Windham	159 \pm 2	147 \pm 2	190 \pm 2	210 \pm 2	272 \pm 3	293 \pm 3	362 \pm 3	361 \pm 3	373 \pm 4	361 \pm 3
Windsor	256 \pm 2	259 \pm 2	257 \pm 2	316 \pm 3	333 \pm 3	351 \pm 3	361 \pm 4	316 \pm 3	326 \pm 3	355 \pm 3
Unknown	15 \pm 0.4	8 \pm 0.3	3 \pm 0.2	11 \pm 0.3	14 \pm 0.4	19 \pm 0.5	18 \pm 0.4	19 \pm 0.4	25 \pm 0.5	67 \pm 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table 2-8
Unduplicated Number of People Hospitalized per 100,000 Population
for Mental Illness
Vermont Residents: 1990 - 1999

Unduplicated Number of People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	364 \pm 2	365 \pm 3	375 \pm 3	397 \pm 3	431 \pm 3	426 \pm 3	457 \pm 3	436 \pm 3.1	436 \pm 3	467 \pm 3.2
VT General Hospitals	235 \pm 2	222 \pm 2	239 \pm 2	243 \pm 2	256 \pm 2	245 \pm 2	279 \pm 2	279 \pm 2	273 \pm 2	297 \pm 2.2
Vermont State Hospital	64	70	60	53	54	51	48	52	45	45
Brattleboro Retreat	24	26	29	39	43	61	73	66	63	79
VA Hospital - WRJ	25 \pm 0.4	25 \pm 0.4	24 \pm 0.4	26 \pm 0.3	27 \pm 0.3	29 \pm 0.5	27 \pm 0.5	22 \pm 0.3	19 \pm 0.3	23 \pm 0.3
New Hampshire Hospitals	51 \pm 0.5	57 \pm 0.5	56 \pm 0.5	74 \pm 0.5	89 \pm 0.7	89 \pm 0.7	77 \pm 0.7	59 \pm 0.5	64 \pm 0.7	63 \pm 0.5
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Unduplicated Number of People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1998
Total	364 \pm 2	365 \pm 3	375 \pm 3	397 \pm 3	431 \pm 2.9	426 \pm 3	457 \pm 3	436 \pm 3	436 \pm 3	467 \pm 3
Addison	176 \pm 3	208 \pm 3	225 \pm 3	299 \pm 3	259 \pm 3	310 \pm 3	314 \pm 3	318 \pm 3	309 \pm 3	363 \pm 3
Bennington	371 \pm 3	407 \pm 6	411 \pm 6	414 \pm 6	523 \pm 6	529 \pm 6	601 \pm 6	369 \pm 6	367 \pm 6	369 \pm 3
Caledonia	366 \pm 7	381 \pm 4	350 \pm 4	404 \pm 4	395 \pm 3	445 \pm 7	368 \pm 3	359 \pm 3	347 \pm 3	351 \pm 3
Chittenden	361 \pm 3	366 \pm 3	345 \pm 3	362 \pm 3	379 \pm 4	347 \pm 3	358 \pm 3	373 \pm 4	363 \pm 3	359 \pm 3
Essex	297 \pm 6	423 \pm 8	380 \pm 8	407 \pm 8	386 \pm 8	385 \pm 8	491 \pm 8	419 \pm 8	404 \pm 8	435 \pm 15
Franklin/Grand Isle	205 \pm 2	243 \pm 2	274 \pm 4	249 \pm 4	286 \pm 4	227 \pm 2	294 \pm 4	277 \pm 4	236 \pm 4	250 \pm 2
Lamoille	345 \pm 5	388 \pm 5	321 \pm 5	359 \pm 5	313 \pm 5	324 \pm 5	275 \pm 5	283 \pm 5	323 \pm 5	397 \pm 5
Orange	371 \pm 4	405 \pm 4	391 \pm 4	393 \pm 4	395 \pm 4	426 \pm 4	488 \pm 7	405 \pm 4	400 \pm 4	445 \pm 4
Orleans	391 \pm 4	394 \pm 4	389 \pm 4	467 \pm 4	489 \pm 8	429 \pm 4	437 \pm 4	432 \pm 4	367 \pm 4	536 \pm 4
Rutland	383 \pm 3	369 \pm 3	394 \pm 3	368 \pm 3	410 \pm 3	444 \pm 5	428 \pm 3	427 \pm 3	571 \pm 6	650 \pm 5
Washington	559 \pm 5	457 \pm 4	535 \pm 5	474 \pm 5	516 \pm 5	498 \pm 5	573 \pm 5	629 \pm 5	540 \pm 5	539 \pm 5
Windham	382 \pm 5	354 \pm 5	449 \pm 5	495 \pm 5	643 \pm 7	690 \pm 7	842 \pm 7	837 \pm 7	873 \pm 9	838 \pm 7
Windsor	474 \pm 4	483 \pm 4	477 \pm 4	593 \pm 6	617 \pm 6	646 \pm 6	656 \pm 7	575 \pm 5	589 \pm 5	641 \pm 5
Unknown	3 \pm 0.1	1 \pm <.1	1 \pm <.1	2 \pm 0.1	2 \pm 0.1	3 \pm 0.1	3 \pm 0.1	3 \pm 0.1	4 \pm 0.1	11 \pm 0.2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 3-1
Episodes of Hospitalization
for Substance Abuse
Vermont Residents: 1990 - 1999

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	1,312	1,246	1,282	1,385	1,496	1,658	1,852	1,760	1,713	1,991
VT General Hospitals	727	680	727	679	808	822	889	944	872	1136
Vermont State Hospital	188	206	164	150	149	128	147	198	160	129
Brattleboro Retreat	129	125	137	168	176	300	359	309	331	364
VA Hospital - WRJ	97	80	81	106	120	97	76	62	62	94
New Hampshire Hospitals	159	146	112	192	183	225	319	186	236	208
Other Out-of-State Hospitals	12	9	61	90	60	86	62	61	52	60

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	1,312	1,245	1,282	1,385	1,496	1,658	1,852	1,760	1,713	1,991
Addison	46	26	52	47	51	56	62	85	64	90
Bennington	54	76	63	89	95	152	139	79	80	107
Caledonia	69	57	82	76	55	69	78	63	63	55
Chittenden	314	335	284	285	333	281	306	343	290	289
Essex	12	11	10	8	6	9	17	13	14	18
Franklin/Grand Isle	53	60	70	74	68	50	92	68	56	52
Lamoille	48	44	23	31	31	37	36	42	38	54
Orange	51	54	51	77	50	60	71	57	51	76
Orleans	53	52	48	55	72	69	61	54	55	74
Rutland	147	146	158	141	180	206	159	171	196	329
Washington	177	136	186	146	146	155	174	215	162	189
Windham	111	112	110	146	167	249	327	320	341	335
Windsor	172	131	144	205	235	255	321	241	287	281
Unknown	5	5	1	5	7	10	9	9	16	42

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 3-2
Episodes of Hospitalization Per 100,000 Population
for Substance Abuse
Vermont Residents: 1990 - 1999

Epsisodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	233	220	225	241	258	284	315	299	290	335
VT General Hospitals	129	120	128	118	139	141	151	160	148	191
Vermont State Hospital	33	36	29	26	26	22	25	34	27	22
Brattleboro Retreat	23	22	24	29	30	51	61	52	56	61
VA Hospital - WRJ	17	14	14	18	21	17	13	11	10	16
New Hampshire Hospitals	28	26	20	33	32	38	54	32	40	35
Other Out-of-State Hospitals	2	2	11	16	10	15	11	10	9	10

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	233	220	225	241	258	284	315	299	290	335
Addison	140	77	156	134	147	159	177	243	183	256
Bennington	151	213	178	249	263	423	387	221	224	298
Caledonia	248	205	293	269	192	242	271	220	219	189
Chittenden	238	251	213	208	240	199	216	242	202	201
Essex	187	166	152	121	93	138	269	210	226	279
Franklin/Grand Isle	117	131	148	156	142	103	187	137	112	103
Lamoille	243	219	112	150	147	174	165	191	176	246
Orange	195	208	197	294	188	224	263	212	189	281
Orleans	220	215	194	223	289	274	238	210	213	284
Rutland	237	232	252	224	288	330	255	273	312	526
Washington	322	245	334	261	260	274	307	379	287	335
Windham	267	270	260	344	395	586	761	742	798	779
Windsor	318	244	267	384	436	469	584	438	519	507
Unknown	< 1	< 1	0	1	1	< 1	2	2	3	7

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 3-3
Patient Days
for Substance Abuse
Vermont Residents: 1990 - 1999

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	25,064	22,771	22,913	21,538	24,113	24,109	22,871	23,220	18,961	19,821
VT General Hospitals	6,213	5,604	6,577	5,563	6,076	5,793	4,925	6,001	5,060	6,643
Vermont State Hospital	11,575	11,724	10,586	9,116	10,549	9,609	8,844	10,973	8,427	7,712
Brattleboro Retreat	4,071	3,061	2,802	2,882	3,363	5,254	5,936	4,099	3,782	3,504
VA Hospital - WRJ	1,344	746	835	1,238	1,230	897	592	386	324	460
New Hampshire Hospitals	1,790	1,542	1,174	1,844	1,482	1,547	1,965	998	1,013	1,106
Other Out-of-State Hospitals	71	94	939	895	1,413	1,009	609	763	355	396

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	25,064	22,771	22,913	21,538	24,113	24,109	22,871	23,220	18,961	19,821
Addison	733	329	723	695	704	1,137	1,183	1,508	575	738
Bennington	1,074	1,048	1,120	1,115	1,181	1,573	1,434	1,186	945	717
Caledonia	940	1,144	1,019	721	723	592	668	616	449	510
Chittenden	6,467	6,914	5,442	5,916	6,085	5,911	5,468	5,855	5,288	4,969
Essex	92	131	119	110	58	54	71	215	429	63
Franklin/Grand Isle	641	898	1,329	990	1,602	911	1,232	1,411	678	839
Lamoille	1,422	1,232	352	426	382	279	236	327	316	360
Orange	803	635	702	844	702	511	455	431	533	672
Orleans	816	965	1,034	714	760	767	913	1,061	642	1,017
Rutland	2,550	1,631	1,789	1,450	1,908	2,776	1,428	1,388	1,505	1,786
Washington	4,356	3,455	4,793	3,293	4,603	3,658	3,011	3,342	2,221	1,708
Windham	2,361	1,811	1,936	2,547	2,411	3,058	3,661	3,046	2,639	2,583
Windsor	2,572	2,425	2,532	2,577	2,750	2,595	3,022	2,423	2,018	2,288
Unknown	237	153	23	140	244	287	89	411	723	1,571

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 3-4
Average Daily Census
 for Substance Abuse
 Vermont Residents: 1990 - 1999

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	69	62	63	59	66	66	62	64	52	54
VT General Hospitals	17	15	18	15	17	16	13	16	14	18
Vermont State Hospital	32	32	29	25	29	26	24	30	23	21
Brattleboro Retreat	11	8	8	8	9	14	16	11	10	10
VA Hospital - WRJ	4	2	2	3	3	2	2	1	1	1
New Hampshire Hospitals	5	4	3	5	4	4	5	3	3	3
Other Out-of-State Hospitals	< 1	< 1	3	2	4	3	2	2	1	1

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	69	62	63	59	66	66	62	64	52	54
Addison	2	1	2	2	2	3	3	4	2	2
Bennington	3	3	3	3	3	4	4	3	3	2
Caledonia	3	3	3	2	2	2	2	2	1	1
Chittenden	18	19	15	16	17	16	15	16	14	14
Essex	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	1	0
Franklin/Grand Isle	2	2	4	3	4	2	3	4	2	2
Lamoille	4	3	1	1	1	1	1	1	1	1
Orange	2	2	2	2	2	1	1	1	1	2
Orleans	2	3	3	2	2	2	2	3	2	3
Rutland	7	4	5	4	5	8	4	4	4	5
Washington	12	9	13	9	13	10	8	9	6	5
Windham	6	5	5	7	7	8	10	8	7	7
Windsor	7	7	7	7	8	7	8	7	6	6
Unknown	1	< 1	< 1	< 1	1	1	< 1	1	2	4

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 3-5
Average Daily Census per 100,000 Population
for Substance Abuse
Vermont Residents: 1990 - 1999

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	12	11	11	10	11	11	11	11	9	9
VT General Hospitals	3	3	3	3	3	3	2	3	2	3
Vermont State Hospital	6	6	5	4	5	5	4	5	4	4
Brattleboro Retreat	2	1	1	1	2	2	3	2	2	2
VA Hospital - WRJ	1	< 1	< 1	1	1	< 1	< 1	< 1	< 1	< 1
New Hampshire Hospitals	1	1	1	1	1	1	1	< 1	< 1	1
Other Out-of-State Hospitals	< 1	< 1	< 1	< 1	1	< 1	< 1	< 1	< 1	< 1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	12	11	11	10	11	11	11	11	9	9
Addison	6	3	6	5	6	9	9	12	5	6
Bennington	8	8	9	9	9	12	11	9	7	5
Caledonia	9	11	10	7	7	6	6	6	4	5
Chittenden	13	14	11	12	12	11	11	11	10	9
Essex	0	5	5	< 1	2	2	0	9	19	3
Franklin/Grand Isle	4	5	8	6	9	5	7	8	4	5
Lamoille	20	17	5	6	5	4	3	4	4	4
Orange	8	7	7	9	7	5	5	4	5	7
Orleans	9	11	11	8	8	8	10	11	7	11
Rutland	11	7	8	6	8	12	6	6	7	8
Washington	22	17	24	16	22	18	15	16	11	8
Windham	16	12	12	16	16	20	23	19	17	16
Windsor	13	12	13	13	14	13	15	12	10	11
Unknown	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 3-6
Average Length of Stay
for Substance Abuse
Vermont Residents: 1990 - 1999

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	19	18	18	16	16	15	12	13	11	10
VT General Hospitals	9	8	9	8	8	7	6	6	6	6
Vermont State Hospital	62	57	65	61	71	75	60	55	53	60
Brattleboro Retreat	32	24	20	17	19	18	17	13	11	10
VA Hospital - WRJ	14	9	10	12	10	9	8	6	5	5
New Hampshire Hospitals	11	11	10	10	8	7	6	5	4	5
Other Out-of-State Hospitals	6	10	15	10	24	12	10	13	7	7

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	19	18	18	16	16	15	12	13	11	10
Addison	16	13	14	15	14	20	19	18	9	8
Bennington	20	14	18	13	12	10	10	15	12	7
Caledonia	14	20	12	9	13	9	9	10	7	9
Chittenden	21	21	19	21	18	21	18	17	18	17
Essex	8	12	12	14	10	6	4	17	31	4
Franklin/Grand Isle	12	15	19	13	24	18	13	21	12	16
Lamoille	30	28	15	14	12	8	7	8	8	7
Orange	16	12	14	11	14	9	6	8	10	9
Orleans	15	19	22	13	11	11	15	20	12	14
Rutland	17	11	11	10	11	13	9	8	8	5
Washington	25	25	26	23	32	24	17	16	14	9
Windham	21	16	18	17	14	12	11	10	8	8
Windsor	15	19	18	13	12	10	9	10	7	8
Unknown	47	31	< 1	< 1	< 1	29	< 1	46	45	37

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Table 3-7
Unduplicated Number of People Hospitalized
for Substance Abuse
Vermont Residents: 1990 - 1999

People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	#### ± 8	990 ± 8	967 ± 8	994 ± 8	#### ± 9	#### ± 9	#### ± 10	#### ± 10	#### ± 10	#### ± 11
VT General Hospitals	619 ± 5	590 ± 5	609 ± 5	563 ± 5	631 ± 6	650 ± 6	675 ± 6	683 ± 7	626 ± 5	828 ± 7
Vermont State Hospital	148	164	138	119	126	111	118	161	135	119
Brattleboro Retreat	119	115	123	142	149	260	259	249	250	297
VA Hospital - WRJ	87 ± 2	66 ± 1	64 ± 1	84 ± 1	88 ± 2	74 ± 1	65 ± 1	50 ± 1	45 ± 1	59 ± 1
New Hampshire Hospitals	127 ± 2	116 ± 2	93 ± 1	149 ± 2	156 ± 2	181 ± 2	224 ± 2	139 ± 2	195 ± 2	159 ± 2
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	#### ± 8	990 ± 8	967 ± 8	994 ± 8	#### ± 9	#### ± 9	#### ± 10	#### ± 10	#### ± 10	#### ± 11
Addison	39 ± 1	22 ± 0.5	37 ± 1	42 ± 1	39 ± 1	42 ± 1	40 ± 1	61 ± 1	45 ± 1	56 ± 1
Bennington	43 ± 1	59 ± 1	41 ± 1	44 ± 1	66 ± 1	97 ± 1	98 ± 1	62 ± 1	61 ± 1	74 ± 1
Caledonia	63 ± 1	55 ± 1	68 ± 1	60 ± 1	44 ± 1	55 ± 1	55 ± 1	47 ± 1	49 ± 1	43 ± 1
Chittenden	254 ± 3	272 ± 3	236 ± 2	226 ± 2	257 ± 3	212 ± 2	129 ± 3	257 ± 3	212 ± 2	238 ± 2
Essex	10 ± 0.3	11 ± 0.3	10 ± 0.3	7 ± 0.3	5 ± 0.2	6 ± 0.2	16 ± 0.4	12 ± 0.4	12 ± 0.4	16 ± 0
Franklin/Grand Isle	43 ± 1	54 ± 1	57 ± 1	57 ± 1	57 ± 1	48 ± 1	68 ± 1	57 ± 1	53 ± 1	48 ± 1
Lamoille	39 ± 1	37 ± 1	19 ± 0.4	23 ± 0.5	25 ± 0.5	29 ± 0.5	22 ± 0.4	24 ± 0.5	23 ± 0.5	33 ± 1
Orange	43 ± 1	44 ± 1	31 ± 1	36 ± 1	40 ± 1	42 ± 1	59 ± 1	43 ± 1	44 ± 1	59 ± 1
Orleans	46 ± 1	45 ± 1	40 ± 1	47 ± 1	44 ± 1	55 ± 1	47 ± 1	43 ± 1	42 ± 1	56 ± 1
Rutland	120 ± 2	116 ± 2	127 ± 2	99 ± 1	125 ± 2	154 ± 2	116 ± 2	125 ± 2	159 ± 2	231 ± 2
Washington	140 ± 2	111 ± 2	132 ± 2	104 ± 1	103 ± 1	114 ± 2	117 ± 2	156 ± 2	121 ± 2	142 ± 2
Windham	86 ± 1	90 ± 1	85 ± 1	104 ± 1	120 ± 2	153 ± 2	187 ± 2	184 ± 2	192 ± 2	204 ± 2
Windsor	135 ± 2	100 ± 1	107 ± 1	160 ± 2	157 ± 2	172 ± 2	196 ± 2	154 ± 2	187 ± 2	172 ± 2
Unknown	4 ± 0.2	4 ± 0.2	1 ± 0.1	5 ± 0.2	7 ± 0.2	9 ± 0.3	6 ± 0.2	6 ± 0.2	16 ± 0.4	42 ± 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table 3-8
Unduplicated Number of People Hospitalized per 100,000 Population
for Substance Abuse
Vermont Residents: 1990 - 1999

People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	183 ± 1	175 ± 1	170 ± 1	173 ± 1	184 ± 2	197 ± 2	209 ± 2	205 ± 2	199 ± 2	231 ± 2
VT General Hospitals	110 ± 0.9	104 ± 0.9	107 ± 0.9	98 ± 0.9	109 ± 1	111 ± 1	115 ± 1	116 ± 1	106 ± 0.8	139 ± 1
Vermont State Hospital	26	29	24	21	22	19	20	27	23	20
Brattleboro Retreat	21	20	22	25	26	44	44	42	42	50
VA Hospital - WRJ	15 ± 0.4	12 ± 0.2	11 ± 0.2	15 ± 0.2	15 ± 0.3	13 ± 0.2	11 ± 0.2	8 ± 0.2	8 ± 0.2	10 ± 0.2
New Hampshire Hospital	23 ± 0.4	20 ± 0.4	16 ± 0.2	26 ± 0.3	27 ± 0.3	31 ± 0.3	38 ± 0.3	24 ± 0.3	33 ± 0.3	27 ± 0.3
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	183 ± 1	175 ± 1	170 ± 1	173 ± 1	184 ± 2	197 ± 2	209 ± 2	205 ± 2	199 ± 2	231 ± 2
Addison	118 ± 3	65 ± 1	111 ± 3	120 ± 3	112 ± 3	119 ± 3	114 ± 3	175 ± 3	129 ± 3	160 ± 3
Bennington	120 ± 3	166 ± 3	116 ± 3	123 ± 3	182 ± 3	270 ± 3	273 ± 3	173 ± 3	171 ± 3	207 ± 3
Caledonia	226 ± 4	198 ± 4	243 ± 4	213 ± 4	154 ± 3	193 ± 4	191 ± 3	164 ± 3	170 ± 3	148 ± 3
Chittenden	193 ± 2	204 ± 2	177 ± 1	165 ± 1	185 ± 2	150 ± 1	91 ± 2	181 ± 2	148 ± 1	165 ± 1
Essex	156 ± 5	166 ± 5	152 ± 5	106 ± 5	77 ± 3	92 ± 3	254 ± 6	193 ± 6	194 ± 6	249 ± 0
Franklin/Grand Isle	95 ± 2	118 ± 2	121 ± 2	120 ± 2	119 ± 2	99 ± 2	138 ± 2	115 ± 2	106 ± 2	95 ± 2
Lamoille	198 ± 5	184 ± 5	92 ± 2	112 ± 2	119 ± 2	136 ± 2	101 ± 2	109 ± 2	106 ± 2	151 ± 5
Orange	164 ± 4	170 ± 4	120 ± 4	138 ± 4	151 ± 4	157 ± 4	218 ± 4	160 ± 4	163 ± 4	219 ± 4
Orleans	191 ± 4	186 ± 4	162 ± 4	191 ± 4	176 ± 4	218 ± 4	183 ± 4	167 ± 4	162 ± 4	216 ± 4
Rutland	193 ± 3	185 ± 3	202 ± 3	158 ± 2	200 ± 3	247 ± 3	186 ± 3	200 ± 3	253 ± 3	370 ± 3
Washington	255 ± 4	200 ± 4	237 ± 4	186 ± 2	183 ± 2	202 ± 4	206 ± 4	275 ± 4	214 ± 4	251 ± 4
Windham	207 ± 2	217 ± 2	201 ± 2	245 ± 2	284 ± 5	360 ± 5	435 ± 5	427 ± 5	449 ± 5	475 ± 5
Windsor	250 ± 4	186 ± 2	198 ± 2	300 ± 4	291 ± 4	316 ± 4	356 ± 4	280 ± 4	338 ± 4	310 ± 4
Unknown	0.7 ± 0.0	0.7 ± 0.0	0	1 ± <.1	1 ± <.1	1.5 ± 0.1	1 ± <.1	1 ± <.1	3 ± <.1	7 ± 0.2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 4-1
Episodes of Hospitalization
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 1999

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	153	138	157	246	246	278	298	274	312	376
VT General Hospitals	59	58	46	46	35	37	29	27	14	17
Vermont State Hospital	2	0	2	1	3	0	3	3	5	5
Brattleboro Retreat	62	53	52	99	104	130	161	164	193	252
New Hampshire Hospitals	25	25	53	91	97	98	95	73	82	97
Other Out-of-State Hospitals	5	2	4	9	7	13	10	7	18	5

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	153	138	157	246	246	278	298	274	312	376
Addison	4	6	3	4	7	7	16	14	10	16
Bennington	14	14	13	18	18	28	24	21	29	28
Caledonia	8	6	7	20	8	15	15	17	16	19
Chittenden	29	18	16	37	36	38	34	33	38	54
Essex	2	4	6	0	2	1	1	1	2	1
Franklin/Grand Isle	4	11	11	19	8	9	17	11	13	17
Lamoille	5	2	1	7	8	10	2	4	10	15
Orange	5	1	12	12	10	15	21	9	7	20
Orleans	8	8	9	22	17	17	11	6	6	19
Rutland	9	7	13	13	21	27	32	35	38	66
Washington	16	12	14	13	26	19	29	22	23	14
Windham	26	30	28	40	51	54	65	57	64	62
Windsor	23	19	24	41	33	34	29	41	54	43
Unknown	0	0	0	0	1	4	2	3	2	2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-2
Episodes of Hospitalization Per 100,000 Population
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 1999

Episodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	107	95	109	171	169	180	193	188	221	270
VT General Hospitals	41	40	32	32	24	24	19	19	10	12
Vermont State Hospital	1	0	1	1	2	0	2	2	4	4
Brattleboro Retreat	43	37	36	69	71	84	104	113	137	181
New Hampshire Hospitals	17	17	37	63	67	64	62	50	58	70
Other Out-of-State Hospitals	3	1	3	6	5	8	6	5	13	4

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	107	95	109	171	169	180	193	188	221	270
Addison	46	68	36	46	81	75	169	160	118	191
Bennington	155	156	146	200	200	294	255	234	333	326
Caledonia	104	78	91	258	103	176	186	225	218	262
Chittenden	94	57	52	119	112	107	97	102	120	173
Essex	118	228	348	0	116	59	59	61	124	62
Franklin/Grand Isle	30	82	81	142	59	62	116	77	93	124
Lamoille	98	38	19	137	152	177	34	71	186	283
Orange	69	14	167	161	136	194	272	123	100	290
Orleans	117	116	130	327	253	248	163	93	96	309
Rutland	60	46	87	87	139	173	205	237	265	468
Washington	114	85	100	93	186	132	199	159	173	107
Windham	244	281	262	376	478	488	596	553	636	623
Windsor	171	142	178	306	244	244	201	296	404	326
Unknown	0	0	0	0	1	3	1	2	1	1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 4-3
Patient Days
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 1999

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	3,499	2,563	2,922	5,424	4,563	5,054	5,426	4,572	4,485	4,246
VT General Hospitals	433	452	353	311	240	121	111	132	36	62
Vermont State Hospital	7	0	202	210	22	0	20	185	75	75
Brattleboro Retreat	2,585	1,724	1,399	2,707	2,655	3,521	4,102	3,567	3,554	3,451
New Hampshire Hospitals	342	373	928	2,046	1,568	1,255	1,038	643	555	613
Other Out-of-State Hospitals	132	14	40	150	78	157	155	45	265	45

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1998
Total	3,499	2,563	2,922	5,424	4,563	5,054	5,426	4,572	4,485	4,246
Addison	127	104	19	55	122	81	287	194	172	167
Bennington	96	140	118	274	439	313	370	430	228	309
Caledonia	258	136	58	359	241	98	242	228	123	149
Chittenden	680	326	488	641	519	577	647	739	933	483
Essex	8	118	127	0	31	2	11	123	24	8
Franklin/Grand Isle	102	264	209	398	133	183	407	143	215	199
Lamoille	36	92	4	149	185	134	24	74	317	118
Orange	67	13	113	298	131	193	343	137	45	150
Orleans	92	106	129	343	248	229	316	60	55	126
Rutland	170	53	213	231	338	429	733	445	355	906
Washington	571	199	167	279	295	416	400	335	529	144
Windham	643	574	940	1,707	1,319	1,643	989	857	949	1,041
Windsor	649	438	337	690	531	608	601	786	499	420
Unknown	0	0	0	0	31	148	56	21	41	26

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-4
Average Daily Census
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 1999

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	10	7	8	15	13	14	15	13	12	12
VT General Hospitals	1	1	1	1	1	< 1	< 1	< 1	< 1	< 1
Vermont State Hospital	< 1	0	1	1	< 1	0	< 1	1	< 1	< 1
Brattleboro Retreat	7	5	4	7	7	10	11	10	10	9
New Hampshire Hospitals	1	1	3	6	4	3	3	2	2	2
Other Out-of-State Hospitals	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	10	7	8	15	13	14	15	13	12	12
Addison	< 1	< 1	< 1	< 1	< 1	< 1	1	1	< 1	< 1
Bennington	< 1	< 1	< 1	1	1	1	1	1	1	1
Caledonia	1	< 1	< 1	1	1	< 1	1	1	< 1	< 1
Chittenden	2	1	1	2	1	2	2	2	3	1
Essex	< 1	< 1	< 1	0	< 1	< 1	< 1	< 1	< 1	< 1
Franklin/Grand Isle	< 1	1	1	1	< 1	1	1	< 1	1	1
Lamoille	< 1	< 1	< 1	< 1	1	< 1	< 1	< 1	1	< 1
Orange	< 1	< 1	< 1	1	< 1	1	1	< 1	< 1	< 1
Orleans	< 1	< 1	< 1	1	1	1	1	< 1	< 1	< 1
Rutland	< 1	< 1	1	1	1	1	2	1	1	2
Washington	2	1	0	1	1	1	1	1	1	< 1
Windham	2	2	3	5	4	5	3	2	3	3
Windsor	2	1	1	2	1	2	2	2	1	1
Unknown	0	0	0	0	< 1	< 1	< 1	< 1	< 1	< 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-5
Average Daily Census Per 100,000 Population
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 1999

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	7	5	6	10	9	9	10	9	9	8
VT General Hospitals	1	1	1	1	< 1	< 1	< 1	< 1	< 1	< 1
Vermont State Hospital	< 1	0	< 1	< 1	< 1	0	< 1	< 1	< 1	< 1
Brattleboro Retreat	5	3	3	5	5	6	7	7	7	7
New Hampshire Hospitals	1	1	2	4	3	2	2	1	1	1
Other Out-of-State Hospitals	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	7	5	6	10	9	9	10	9	9	8
Addison	4	3	1	2	4	2	8	6	6	5
Bennington	3	4	4	8	13	9	11	13	7	10
Caledonia	9	5	2	13	9	3	8	8	5	6
Chittenden	6	3	4	6	4	4	5	6	8	4
Essex	1	18	20	0	5	< 1	2	21	4	1
Franklin/Grand Isle	2	5	4	8	3	3	8	3	4	4
Lamoille	2	5	< 1	8	10	6	1	4	16	6
Orange	3	< 1	4	11	5	7	12	5	2	6
Orleans	4	4	5	14	10	9	13	3	2	6
Rutland	3	1	4	4	6	8	13	8	7	18
Washington	11	4	3	5	6	8	7	7	11	3
Windham	17	15	24	44	34	41	25	23	26	29
Windsor	13	9	7	14	11	12	11	16	10	9
Unknown	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 4-6
Average Length of Stay
for Behavioral Health Services
Vermont **Children and Adolescents:** 1990 - 1999

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	23	19	19	22	19	18	18	17	14	11
VT General Hospitals	7	8	8	7	7	3	4	5	3	4
Vermont State Hospital	4	0	101	210	7	0	7	62	15	15
Brattleboro Retreat	42	33	27	27	26	27	25	22	18	14
New Hampshire Hospitals	14	15	18	22	16	13	11	9	7	6
Other Out-of-State Hospitals	26	7	10	17	11	12	16	6	15	9

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	23	19	19	22	19	18	18	17	14	11
Addison	32	17	6	14	17	12	18	14	17	10
Bennington	7	10	9	15	24	11	15	20	8	11
Caledonia	32	23	8	18	30	7	16	13	8	8
Chittenden	23	18	31	17	14	15	19	22	25	9
Essex	4	30	21	0	16	2	11	123	12	8
Franklin/Grand Isle	26	24	19	21	17	20	24	13	17	12
Lamoille	7	46	4	21	23	13	12	19	32	8
Orange	13	13	9	25	13	13	16	15	6	8
Orleans	12	13	14	16	15	13	29	10	9	7
Rutland	19	8	16	18	16	16	23	13	9	14
Washington	36	17	12	21	11	22	14	15	23	10
Windham	25	19	34	43	26	30	15	15	15	17
Windsor	28	23	14	17	16	18	21	19	9	10
Unknown	0	0	0	0	31	37	28	7	21	13

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-7
Unduplicated Number of Children and Adolescents Served
for Behavioral Health Services
Vermont Children and Adolescents: 1990 - 1999

People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	135 ± 3	116 ± 3	122 ± 3	164 ± 4	186 ± 4	204 ± 5	237 ± 5	207 ± 3	220 ± 4	284 ± 5
VT General Hospitals	55 ± 2	51 ± 1	42 ± 1	34 ± 1	34 ± 0.9	30 ± 0.9	26 ± 0.8	27 ± 1	13 ± 0.4	17 ± 0.6
Vermont State Hospital	2	0	1	1	2	0	3	3	5	5
Brattleboro Retreat	57	51	40	69	71	102	136	131	111	193
VA Hospital - WRJ	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
New Hampshire Hospitals	24 ± 0.8	22 ± 0.8	45 ± 1	79 ± 2	91 ± 2	90 ± 2	84 ± 2	69 ± 2	71 ± 2	84 ± 2
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	135 ± 3	116 ± 3	122 ± 3	164 ± 4	186 ± 4	204 ± 5	237 ± 5	207 ± 3	220 ± 4	284 ± 5
Addison	4 ± 0.2	6 ± 0.3	3 ± 0.2	4 ± 0.2	4 ± 0.2	7 ± 0.3	13 ± 0.4	9 ± 0.3	7 ± 0.3	12 ± 0.4
Bennington	1 ± <.1	2 ± 0.2	3 ± 0.2	7 ± 0.3	11 ± 0.4	10 ± 0.4	13 ± 0.4	15 ± 0.4	19 ± 0.5	19 ± 0.6
Caledonia	7 ± 0.3	6 ± 0.3	6 ± 0.3	10 ± 0.4	4 ± 0.2	10 ± 0.4	12 ± 0.4	10 ± 0.4	14 ± 0.4	16 ± 0.5
Chittenden	24 ± 0.9	17 ± 0.6	14 ± 0.5	29 ± 0.9	28 ± 0.8	31 ± 0.8	22 ± 0.7	26 ± 1	25 ± 1	40 ± 1
Essex	2 ± 0.2	3 ± 0.2	4 ± 0.2	0	1 ± <.1	1 ± <.1	1 ± <.1	1 ± 0.1	2 ± 0.1	1 ± 0.1
Franklin/Grand Isle	3 ± 0.2	7 ± 0.3	9 ± 0.4	10 ± 0.4	6 ± 0.3	9 ± 0.3	16 ± 0.5	9 ± 0.3	11 ± 0.4	13 ± 0.4
Lamoille	5 ± 0.3	1 ± <.1	1 ± <.1	5 ± 0.2	6 ± 0.3	10 ± 0.4	2 ± 0.2	3 ± 0.2	5 ± 0.2	9 ± 0.3
Orange	4 ± 0.2	1 ± <.1	9 ± 0.3	6 ± 0.3	8 ± 0.3	9 ± 0.3	16 ± 0.6	8 ± 0.3	6 ± 0.2	12 ± 0.4
Orleans	8 ± 0.3	6 ± 0.3	8 ± 0.3	9 ± 0.4	12 ± 0.4	13 ± 0.4	10 ± 0.4	6 ± 0.3	5 ± 0.2	16 ± 0.5
Rutland	5 ± 0.3	7 ± 0.3	12 ± 0.4	11 ± 0.4	19 ± 0.6	20 ± 0.7	18 ± 0.6	27 ± 1	25 ± 1	49 ± 1
Washington	13 ± 0.5	10 ± 0.4	10 ± 0.4	10 ± 0.3	20 ± 0.6	13 ± 0.4	23 ± 0.7	17 ± 0.5	17 ± 0.5	13 ± 0.4
Windham	22 ± 0.6	28 ± 0.9	18 ± 0.6	28 ± 0.9	38 ± 0.9	38 ± 1	52 ± 1	43 ± 1	44 ± 1	50 ± 1
Windsor	21 ± 0.7	15 ± 0.5	21 ± 0.7	32 ± 0.9	24 ± 0.7	28 ± 0.8	26 ± 0.8	32 ± 1	42 ± 1	37 ± 1
Unknown	0	0	0	0	1 ± <.1	3 ± 0.2	2 ± 0.2	0	2 ± 0.1	2 ± 0.2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Table 4-8
Unduplicated Number of Children and Adolescents Served Per 100,000 Population
for Behavioral Health Services
Vermont Children and Adolescents: 1990 - 1999

People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	94 \pm 2	80 \pm 2	85 \pm 2	114 \pm 3	128 \pm 3	133 \pm 3	154 \pm 3	142 \pm 2	156 \pm 3	204 \pm 4
VT General Hospitals	38 \pm 1	35 \pm 1	29 \pm 0.9	24 \pm 0.7	23 \pm 0.6	20 \pm 0.6	17 \pm 0.5	19 \pm 0.7	9 \pm 0.3	12 \pm 0.4
Vermont State Hospital	1	0	1	1	1	0	2	2	4	4
Brattleboro Retreat	40	35	28	48	49	66	88	90	79	139
VA Hospital - WRJ	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0
New Hampshire Hospitals	17 \pm 0.5	15 \pm 0.5	32 \pm 0.9	55 \pm 1	63 \pm 1	59 \pm 1	54 \pm 1	47 \pm 1	50 \pm 1	60 \pm 1
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	94 \pm 2	80 \pm 2	85 \pm 2	114 \pm 3	128 \pm 3	133 \pm 3	154 \pm 3	142 \pm 2	156 \pm 3	201 \pm 4
Addison	47 \pm 2	68 \pm 4	36 \pm 2	46 \pm 2	46 \pm 2	75 \pm 4	138 \pm 5	103 \pm 3	82 \pm 4	144 \pm 5
Bennington	11 \pm <.1	22 \pm 2	34 \pm 2	78 \pm 3	123 \pm 4	105 \pm 4	138 \pm 5	167 \pm 4	218 \pm 6	222 \pm 7
Caledonia	91 \pm 4	78 \pm 4	78 \pm 4	130 \pm 6	52 \pm 3	118 \pm 5	149 \pm 5	132 \pm 5	191 \pm 5	222 \pm 7
Chittenden	78 \pm 3	54 \pm 2	46 \pm 2	94 \pm 3	87 \pm 3	88 \pm 2	63 \pm 2	81 \pm 3	79 \pm 3	129 \pm 3
Essex	119 \pm 12	172 \pm 11	233 \pm 11	0	58 \pm <.1	59 \pm <.1	59 \pm <.1	61 \pm 6	124 \pm 6	62 \pm 6
Franklin/Grand Isle	23 \pm 1	52 \pm 2	66 \pm 3	75 \pm 3	45 \pm 2	62 \pm 2	109 \pm 4	63 \pm 2	79 \pm 3	95 \pm 3
Lamoille	99 \pm 5	19 \pm <.1	19 \pm 0	98 \pm 4	114 \pm 5	177 \pm 7	34 \pm 3	53 \pm 4	93 \pm 4	171 \pm 6
Orange	55 \pm 3	14 \pm <.1	125 \pm 5	81 \pm 4	109 \pm 4	116 \pm 4	208 \pm 7	109 \pm 4	86 \pm 3	175 \pm 6
Orleans	117 \pm 4	87 \pm 4	116 \pm 5	134 \pm 6	179 \pm 6	191 \pm 6	148 \pm 6	93 \pm 5	80 \pm 3	261 \pm 8
Rutland	33 \pm 2	46 \pm 2	81 \pm 3	74 \pm 3	126 \pm 4	129 \pm 4	116 \pm 4	183 \pm 7	174 \pm 7	350 \pm 7
Washington	93 \pm 3	71 \pm 3	71 \pm 3	72 \pm 2	143 \pm 4	91 \pm 3	159 \pm 4	123 \pm 4	128 \pm 4	100 \pm 3
Windham	207 \pm 6	264 \pm 8	169 \pm 6	265 \pm 8	358 \pm 9	346 \pm 10	481 \pm 12	417 \pm 10	438 \pm 10	506 \pm 10
Windsor	157 \pm 5	113 \pm 4	156 \pm 5	240 \pm 7	178 \pm 5	202 \pm 5	181 \pm 5	231 \pm 7	315 \pm 7	282 \pm 8
Unknown	0	0	0	0	1 \pm <.1	2 \pm 4	1 \pm 0.1	0 \pm 0	1 \pm <.1	1 \pm 0.1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Vermont children and adolescents include residents under the age of 18.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 5-1
Episodes of Hospitalization
for Behavioral Health Services
Vermont **Adults:** 1990 - 1999

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	3,370	3,412	3,358	3,600	3,833	3,886	4,230	4,190	4,070	4,083
VT General Hospitals	2,001	1,928	1,974	2,023	2,196	2,105	2,485	2,549	2,437	2,569
Vermont State Hospital	486	501	399	381	402	381	351	377	304	288
Brattleboro Retreat	164	189	204	247	273	389	478	514	568	460
VA Hospital - WRJ	193	199	182	150	163	156	141	236	236	255
New Hampshire Hospitals	489	551	500	653	696	717	669	409	418	406
Other Out-of-State Hospitals	37	44	99	146	103	138	106	105	107	105

Episodes of Hospitalization by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	3,370	3,412	3,358	3,600	3,833	3,886	4,230	4,190	4,070	4,083
Addison	109	108	121	144	149	146	183	182	158	238
Bennington	205	236	216	272	278	317	308	212	202	210
Caledonia	142	148	146	168	151	166	168	151	135	126
Chittenden	789	806	690	723	802	721	720	801	773	698
Essex	29	29	29	35	31	35	43	36	40	36
Franklin/Grand Isle	151	157	181	167	177	142	203	179	159	148
Lamoille	100	116	94	96	92	90	106	116	110	130
Orange	154	174	167	198	151	173	175	158	145	149
Orleans	157	154	137	164	179	148	147	158	136	173
Rutland	355	382	381	354	391	423	414	436	557	568
Washington	475	427	475	437	495	472	577	608	458	460
Windham	247	246	288	348	369	471	572	619	635	543
Windsor	440	419	430	481	552	561	595	513	536	535
Unknown	17	10	3	13	16	21	19	21	26	69

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-2
Episodes of Hospitalization Per 100,000 Population
for Behavioral Health Services
Vermont **Adults:** 1990 - 1999

Episodes per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,347	2,353	2,336	2,501	2,633	886	956	949	905	899
VT General Hospitals	1,394	1,330	1,373	1,405	1,509	480	562	577	542	565
Vermont State Hospital	339	346	278	265	276	87	79	85	68	63
Brattleboro Retreat	114	130	142	172	188	89	108	116	126	101
VA Hospital - WRJ	134	137	127	104	112	36	32	53	52	56
New Hampshire Hospitals	341	380	348	454	478	163	151	93	93	89
Other Out-of-State Hospitals	26	30	69	101	71	31	24	24	24	23

Episodes per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,347	2,353	2,336	2,501	2,633	886	956	949	905	899
Addison	448	435	485	546	572	551	680	752	598	890
Bennington	764	886	813	1,016	1,023	1,162	1,126	792	748	769
Caledonia	705	736	721	822	725	790	793	715	629	576
Chittenden	783	791	673	685	753	668	658	730	691	618
Essex	616	597	597	718	652	734	900	789	875	743
Franklin/Grand Isle	471	486	540	493	514	405	569	507	442	401
Lamoille	683	779	612	620	582	559	646	711	676	779
Orange	815	931	897	1,056	786	898	904	805	725	739
Orleans	913	893	770	915	981	800	783	822	693	871
Rutland	754	803	796	739	825	891	870	913	1,149	1,171
Washington	1,160	1,031	1,141	1,040	1,174	1,111	1,348	1,416	1,061	1,062
Windham	799	797	910	1,095	1,166	1,480	1,788	1,886	1,943	1,643
Windsor	1,083	1,039	1,064	1,205	1,366	1,390	1,476	1,248	1,277	1,266
Unknown	12	7	2	9	11	5	4	5	6	15

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table 5-3
Patient Days
for Behavioral Health Services
Vermont **Adults:** 1990 - 1999

Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	78,816	75,253	74,347	68,531	66,223	62,932	59,493	56,976	50,063	50,172
VT General Hospitals	22,402	21,614	21,934	20,980	20,722	19,377	19,923	19,649	18,078	19,992
Vermont State Hospital	41,258	37,143	34,928	31,392	27,756	27,059	23,432	23,642	19,886	19,740
Brattleboro Retreat	4,580	4,564	4,139	4,558	4,934	6,214	8,271	8,142	7,081	5,331
VA Hospital - WRJ	3,100	2,871	4,461	1,428	2,224	2,412	2,048	1,850	1,484	1,493
New Hampshire Hospitals	6,974	8,509	7,028	8,709	8,404	5,901	4,813	2,347	2,266	2,486
Other Out-of-State Hospitals	502	552	1,857	1,464	2,183	1,969	1,006	1,346	1,268	1,130

Patient Days by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	78,816	75,253	74,347	68,531	66,223	62,932	59,493	56,976	50,063	50,172
Addison	1,861	1,591	2,310	2,695	2,156	2,333	2,764	2,724	1,869	2,601
Bennington	3,775	4,027	3,622	3,863	4,131	4,247	3,678	3,298	2,452	2,134
Caledonia	2,676	2,986	2,614	1,974	1,932	1,848	1,807	1,736	1,401	1,324
Chittenden	17,901	19,631	18,070	17,540	16,421	16,083	12,970	14,204	13,672	13,749
Essex	285	389	291	418	720	362	510	381	597	750
Franklin/Grand Isle	3,653	3,730	5,495	3,392	4,111	2,841	3,555	3,108	2,407	2,943
Lamoille	2,808	2,653	1,834	2,185	1,656	1,076	1,304	1,371	1,359	1,698
Orange	2,693	2,859	3,328	2,717	2,040	2,020	2,286	1,893	2,067	1,790
Orleans	2,273	2,751	2,472	2,169	2,395	2,056	2,720	2,226	1,737	1,937
Rutland	6,115	5,573	5,645	4,807	4,895	6,427	4,643	3,999	4,402	3,715
Washington	18,549	14,837	14,241	12,492	12,454	10,777	9,634	8,936	5,981	5,696
Windham	6,101	5,599	7,110	6,575	5,564	6,030	7,502	7,015	6,526	5,287
Windsor	8,933	8,273	7,230	7,202	7,138	6,256	5,791	4,950	4,577	4,401
Unknown	1,193	354	85	502	610	576	329	1,135	1,016	2,147

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-4
Average Daily Census
for Behavioral Health Services
Vermont **Adults:** 1990 - 1999

Average Daily Census by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	216	206	203	188	181	172	163	156	137	137
VT General Hospitals	61	59	60	57	57	53	54	54	50	55
Vermont State Hospital	113	102	95	86	76	74	64	65	54	54
Brattleboro Retreat	13	13	11	12	14	17	23	22	19	15
VA Hospital - WRJ	8	8	12	4	6	7	6	5	4	4
New Hampshire Hospitals	19	23	19	24	23	16	13	6	6	7
Other Out-of-State Hospitals	1	2	5	4	6	5	3	4	3	3

Average Daily Census by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	216	206	203	188	181	172	163	156	137	137
Addison	5	4	6	7	6	6	8	7	5	7
Bennington	10	11	10	11	11	12	10	9	7	6
Caledonia	7	8	7	5	5	5	5	5	4	4
Chittenden	49	54	49	48	45	44	35	39	37	38
Essex	1	1	1	1	2	1	1	1	2	2
Franklin/Grand Isle	10	10	15	9	11	8	10	9	7	8
Lamoille	8	7	5	6	5	3	4	4	4	5
Orange	7	8	9	7	6	6	6	5	6	5
Orleans	6	8	7	6	7	6	7	6	5	5
Rutland	17	15	15	13	13	18	13	11	12	10
Washington	51	41	39	34	34	30	26	24	16	16
Windham	17	15	19	18	15	17	20	19	18	14
Windsor	24	23	20	20	20	17	16	14	13	12
Unknown	3	1	< 1	1	2	2	1	3	3	6

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-5
Average Daily Census Per 100,000 Population
for Behavioral Health Services
Vermont **Adults:** 1990 - 1999

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	150	142	141	130	125	39	37	35	31	30
VT General Hospitals	43	41	42	40	39	12	12	12	11	12
Vermont State Hospital	79	70	66	60	52	17	14	15	12	12
Brattleboro Retreat	6	5	8	3	4	2	1	5	4	3
VA Hospital - WRJ	13	16	13	17	16	4	3	1	1	1
New Hampshire Hospitals	1	1	4	3	4	1	1	1	1	1
Other Out-of-State Hospitals	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	1	1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	150	142	141	130	125	39	37	35	31	30
Addison	21	18	25	28	23	24	28	31	19	27
Bennington	39	41	37	40	42	43	37	34	25	21
Caledonia	36	41	35	26	25	24	23	23	18	17
Chittenden	49	53	48	46	42	41	32	35	33	33
Essex	17	22	16	23	41	21	29	23	36	42
Franklin/Grand Isle	31	32	45	27	33	22	27	24	18	22
Lamoille	53	49	33	39	29	18	22	23	23	28
Orange	39	42	49	40	29	29	32	26	28	24
Orleans	36	44	38	33	36	30	40	32	24	27
Rutland	36	32	32	27	28	37	27	23	25	21
Washington	124	98	93	81	81	69	61	57	38	36
Windham	54	50	61	57	48	52	64	59	55	44
Windsor	60	56	49	49	48	42	39	33	30	29
Unknown	2	1	< 1	1	1	< 1	< 1	1	1	1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Vermont adults include residents age 18 and older.

Table 5-6
Average Length of Stay
for Behavioral Health Services
Vermont **Adults:** 1990 - 1999

Average Length of Stay by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	23	22	22	19	17	16	14	14	12	12
VT General Hospitals	11	11	11	10	9	9	8	8	7	8
Vermont State Hospital	85	74	88	82	69	71	67	63	65	69
Brattleboro Retreat	28	24	20	18	18	16	17	16	12	12
VA Hospital - WRJ	16	14	25	10	14	15	15	8	6	6
New Hampshire Hospitals	14	15	14	13	12	8	7	6	5	6
Other Out-of-State Hospitals	14	13	19	10	21	14	9	13	12	11

Average Length of Stay by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	23	22	22	19	17	16	14	14	12	12
Addison	17	15	19	19	14	16	15	15	12	11
Bennington	18	17	17	14	15	13	12	16	12	10
Caledonia	19	20	18	12	13	11	11	11	10	11
Chittenden	23	24	26	24	20	22	18	18	18	20
Essex	10	13	10	12	23	10	12	11	15	21
Franklin/Grand Isle	24	24	30	20	23	20	18	17	15	20
Lamoille	28	23	20	23	18	12	12	12	12	13
Orange	17	16	20	14	14	12	13	12	14	12
Orleans	14	18	18	13	13	14	19	14	13	11
Rutland	17	15	15	14	13	15	11	9	8	7
Washington	39	35	30	29	25	23	17	15	13	12
Windham	25	23	25	19	15	13	13	11	10	10
Windsor	20	20	17	15	13	11	10	10	9	8
Unknown	70	35	28	39	38	27	17	54	39	31

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-7
Unduplicated Number of Adults Hospitalized
for Behavioral Health Services
Vermont **Adults:** 1990 - 1999

People Served by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,463 ± 18	2,455 ± 18	2,385 ± 17	2,456 ± 18	2,590 ± 19	2,539 ± 19	2,682 ± 20	2,669 ± 19	2,635 ± 20	2,627 ± 19
VT General Hospitals	1,617 ± 12	1,546 ± 11	1,567 ± 11	1,554 ± 11	1,617 ± 12	1,538 ± 12	1,755 ± 13	1,748 ± 14	1,704 ± 12	1,799 ± 13
Vermont State Hospital	411	428	348	322	342	330	286	311	265	261
Brattleboro Retreat	147	161	175	198	225	319	350	405	363	366
VA Hospital - WRJ	171 ± 2	174 ± 2	164 ± 2	187 ± 2	192 ± 3	200 ± 3	182 ± 3	146 ± 2	141 ± 2	147 ± 2
New Hampshire Hospitals	350 ± 3	388 ± 3	341 ± 3	416 ± 4	467 ± 4	456 ± 4	396 ± 4	305 ± 3	324 ± 3	295 ± 3
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People Served by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,463 ± 18	2,455 ± 18	2,385 ± 17	2,456 ± 18	2,590 ± 19	2,539 ± 19	2,682 ± 20	2,669 ± 19	2,635 ± 20	2,627 ± 19
Addison	84 ± 1	82 ± 1	86 ± 1	110 ± 1	100 ± 1	105 ± 1	107 ± 1	121 ± 2	109 ± 1	123 ± 1
Bennington	53 ± 0.8	55 ± 0.8	41 ± 0.7	44 ± 0.7	49 ± 0.8	67 ± 1	56 ± 0.9	146 ± 2	135 ± 2	131 ± 1
Caledonia	121 ± 1	121 ± 1	117 ± 1	128 ± 1	121 ± 1	128 ± 1	111 ± 1	104 ± 1	97 ± 1	89 ± 1
Chittenden	575 ± 5	608 ± 5	530 ± 4	518 ± 4	563 ± 5	502 ± 4	524 ± 4	557 ± 5	527 ± 4	504 ± 4
Essex	21 ± 0.5	26 ± 0.5	25 ± 0.5	30 ± 0.6	24 ± 0.5	26 ± 0.6	33 ± 0.7	28 ± 1	30 ± 1	29 ± 1
Franklin/Grand Isle	122 ± 1	127 ± 1	139 ± 2	130 ± 2	143 ± 2	113 ± 1	145 ± 2	139 ± 2	121 ± 2	118 ± 1
Lamoille	81 ± 1	92 ± 1	75 ± 1	74 ± 1	66 ± 0.9	65 ± 0.9	67 ± 0.9	62 ± 1	76 ± 1	79 ± 1
Orange	117 ± 1	127 ± 1	110 ± 1	111 ± 1	111 ± 1	121 ± 1	120 ± 1	112 ± 1	109 ± 1	109 ± 1
Orleans	118 ± 1	110 ± 1	103 ± 1	123 ± 1	114 ± 1	105 ± 1	107 ± 1	114 ± 1	99 ± 1	127 ± 1
Rutland	296 ± 3	284 ± 3	287 ± 3	258 ± 2	285 ± 3	296 ± 3	284 ± 3	298 ± 3	386 ± 3	393 ± 3
Washington	346 ± 3	293 ± 3	324 ± 3	283 ± 3	298 ± 3	290 ± 3	321 ± 3	361 ± 4	312 ± 3	303 ± 3
Windham	185 ± 2	183 ± 2	204 ± 2	222 ± 2	262 ± 2	280 ± 3	340 ± 3	368 ± 3	377 ± 4	332 ± 3
Windsor	311 ± 3	299 ± 3	292 ± 3	345 ± 3	350 ± 3	360 ± 3	364 ± 3	313 ± 3	323 ± 3	328 ± 3
Unknown	16 ± 0.4	9 ± 0.3	3 ± 0.2	12 ± 0.3	16 ± 0.4	18 ± 0.5	16 ± 0.4	13 ± 0.3	24 ± 0.5	67 ± 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Vermont adults include residents age 18 and older.

Table 5-8
Unduplicated Number of Adults Hospitalized Per 100,000 Population
for Behavioral Health Services
Vermont **Adults:** 1990 - 1999

People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	1,715 ± 12	1,693 ± 12	1,659 ± 12	1,706 ± 12	1,779 ± 13	579 ± 4	606 ± 4	605 ± 4	586 ± 4	578 ± 4
VT General Hospitals	1,126 ± 8	1,066 ± 8	1,090 ± 8	1,080 ± 8	1,111 ± 8	351 ± 3	397 ± 3	396 ± 3	379 ± 3	396 ± 3
Vermont State Hospital	286	295	242	224	235	75	65	70	59	57
Brattleboro Retreat	102	111	122	138	155	73	79	92	81	81
VA Hospital - WRJ	119 ± 2	120 ± 2	114 ± 2	130 ± 2	132 ± 2	46 ± 0.7	41 ± 0.6	33 ± 0.5	31 ± 0.4	32 ± 0.4
New Hampshire Hospitals	244 ± 2	268 ± 2	237 ± 2	289 ± 3	321 ± 3	104 ± 0.9	90 ± 0.8	69 ± 0.7	72 ± 0.7	65 ± 1
Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

People per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	1,715 ± 12	1,693 ± 12	1,659 ± 12	1,706 ± 12	1,779 ± 13	579 ± 4	606 ± 4	605 ± 4	586 ± 4	578 ± 4
Addison	346 ± 5	332 ± 5	346 ± 5	419 ± 5	385 ± 5	398 ± 5	399 ± 5	500 ± 8	412 ± 4	458 ± 4
Bennington	198 ± 3	207 ± 3	155 ± 3	165 ± 3	181 ± 3	247 ± 4	205 ± 3	545 ± 7	500 ± 7	478 ± 4
Caledonia	598 ± 7	604 ± 7	580 ± 7	624 ± 7	579 ± 7	607 ± 7	526 ± 6	493 ± 5	452 ± 5	408 ± 5
Chittenden	570 ± 5	597 ± 5	516 ± 4	490 ± 4	528 ± 4	465 ± 4	479 ± 4	508 ± 5	471 ± 4	447 ± 4
Essex	447 ± 10	537 ± 11	516 ± 11	617 ± 12	506 ± 11	547 ± 12	693 ± 14	613 ± 22	656 ± 22	601 ± 21
Franklin/Grand Isle	379 ± 4	392 ± 4	414 ± 5	382 ± 4	414 ± 5	324 ± 4	406 ± 4	394 ± 6	336 ± 6	318 ± 3
Lamoille	555 ± 8	620 ± 8	490 ± 7	479 ± 6	419 ± 6	405 ± 6	410 ± 6	380 ± 6	467 ± 6	476 ± 6
Orange	617 ± 7	677 ± 8	593 ± 7	595 ± 7	580 ± 7	625 ± 7	618 ± 7	571 ± 5	545 ± 5	543 ± 5
Orleans	683 ± 8	640 ± 8	582 ± 7	684 ± 8	622 ± 8	570 ± 7	572 ± 7	593 ± 5	505 ± 5	637 ± 5
Rutland	628 ± 6	596 ± 5	599 ± 5	539 ± 5	601 ± 5	623 ± 6	596 ± 5	624 ± 6	796 ± 6	810 ± 6
Washington	844 ± 8	707 ± 6	779 ± 7	673 ± 6	707 ± 7	682 ± 6	750 ± 7	841 ± 9	723 ± 7	699 ± 7
Windham	598 ± 6	593 ± 6	645 ± 6	699 ± 7	827 ± 8	880 ± 8	1,064 ± 10	1122 ± 9	1154 ± 12	1003 ± 9
Windsor	766 ± 7	741 ± 7	722 ± 7	863 ± 8	865 ± 8	891 ± 8	903 ± 8	761 ± 7	770 ± 7	777 ± 7
Unknown	11 ± 0.3	6 ± 0.2	2 ± 0.1	8 ± 0.2	11 ± 0.3	4 ± 0.4	4 ± 0.1	3 ± 0.1	5 ± 0.1	15 ± 0.2

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Vermont adults include residents age 18 and older.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

APPENDIX A

Inpatient Behavioral Health Care Utilization by Hospital

Table A-1
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1990

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	3,523	82,315	23	2,598 ± 18		
Vermont State Hospital	488	41,265	85	413	128 ± 7	31%
Brattleboro Retreat	226	7,165	32	204	42 ± 4	21%
VA - White River Junction	218	3,442	16	171 ± 2	16 ± 4	9%
Vermont General Hospitals	2,060	22,835	11	1,672 ± 12	215 ± 14	13%
Fletcher Allen	801	10,687	13	652 ± 5	132 ± 10	20%
Central Vermont Medical Center	297	2,964	10	248 ± 2	58 ± 5	23%
Rutland	290	3,391	12	236 ± 2	29 ± 3	12%
Southwest Vermont	155	1,584	10	138 ± 2	19 ± 2	14%
Springfield	40	211	5	39 ± 0.7	9 ± 1	23%
Northeast VT	133	1,348	10	127 ± 2	26 ± 4	21%
Northwestern	14	95	7	14 ± 0.4	4 ± 0.2	29%
Rockingham	108	1,131	10	90 ± 1.2	67 ± 4	75%
North Country	66	287	4	57 ± 0.8	15 ± 1	26%
Mt. Ascutney	50	560	11	37 ± 0.7	10 ± 0.7	27%
Brattleboro Memorial	24	210	9	23 ± 0.5	7 ± 0.5	30%
Copley	42	236	6	41 ± 0.7	11 ± 2	28%
Porter	9	23	3	9 ± 0.3	2 ± 0.2	22%
Gifford	18	53	3	16 ± 0.4	3 ± 0.2	19%
Grace Cottage	13	55	4	11 ± 0.3	5 ± 0.2	45%
New Hampshire General Hospitals	494	7,106	14	374 ± 3	82 ± 7	22%
Mary Hitchcock	369	5,716	15	275 ± 3	78 ± 5	29%
Cheshire Hospital	48	595	12	39 ± 1	10 ± 1.3	25%
Valley Regional	3	7	2	3 ± 0.2	1 ± <.1	33%
Weeks	7	55	8	6 ± 0.3	1 ± <.1	17%
Monadnock Community	0	0	--	0	0	--
Other New Hampshire Hospitals	67	733	11	62 ± 1	0	0%
Massachusetts Hospitals	37	502	14		Unknown	
VA - Northhampton	0	0	--			
Franklin County Medical Center	13	183	14			
North Adams	8	63	8			
Baystate Medical Center	0	0	--			
Other Massachusetts Hospitals	16	256	16			
New York Hospitals	Unknown	Unknown	--		Unknown	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. New York hospital data not available prior to 1993.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The 'total served' by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

Other New Hampshire Hospitals include Alice Peck, Catholic, Androscoggin, Cottage, Elliot, Littleton, Upper CT Valley, Lakes Region, St. Josephs, Frisbie, Nashua Memorial, Parkland, and N. Conway Memorial. Other Massachusetts Hospitals include Berkshire, VA-Boston, Children's, NE Deaconess, VA-Brockton/West Roxbury, Colley-Dickenson, Mass General, Beth Israel, Lahey Clinic, Brigham and Women, NE Medical Center, U-Mass Medical Center, and other Mass hospitals. New York Hospitals include Albany, Samaritan, Leonard, Champlain Valley, Glens Falls, St Peters, United, Moses-Ludington, and other New York hospitals.

Table A-2
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1991

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>People Served</u>	<u>Unduplicated Count of People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	3,550	77,816	22	2,571 ± 18		
Vermont State Hospital	501	37,143	74	427	139 ± 8	33%
Brattleboro Retreat	242	6,288	26	212	44 ± 4	21%
VA - White River Junction	224	3,244	14	174 ± 2	24 ± 5	14%
Vermont General Hospitals	1,986	22,066	11	1,596 ± 11	205 ± 15	13%
Fletcher Allen	782	11,011	14	651 ± 5	127 ± 11	20%
Central Vermont Medical Center	286	2,969	10	228 ± 2	65 ± 5	29%
Rutland	308	3,141	10	242 ± 2	39 ± 5	16%
Southwest Vermont	168	1,481	9	145 ± 2	21 ± 3	15%
Springfield	135	1,424	11	115 ± 1	36 ± 3	31%
Northeast VT	111	977	9	109 ± 1.4	22 ± 3	20%
Northwestern	35	217	6	31 ± 0.6	7 ± 1	22%
North Country	48	204	4	44 ± 0.7	17 ± 1	38%
Mt. Ascutney	24	303	13	21 ± 0.5	6 ± 0.8	28%
Brattleboro Memorial	28	101	4	26 ± 0.6	5 ± 0.2	19%
Copley	31	125	4	30 ± 0.6	6 ± 0.7	20%
Porter	11	50	5	11 ± 0.3	4 ± 0.2	36%
Gifford	13	36	3	11 ± 0.3	2 ± 0.7	17%
Grace Cottage	6	27	5	6 ± 0.3	1 ± <.1	17%
New Hampshire General Hospitals	553	8,523	15	410 ± 3	88 ± 8	21%
Mary Hitchcock	453	7,549	17	325 ± 3	78 ± 7	24%
Cheshire Hospital	40	367	9	35 ± 0.8	12 ± 1	33%
Valley Regional	0	0	--	0	0	--
Weeks	4	14	4	4 ± 0.2	1 ± <.1	25%
Monadnock Community	0	0	--	0	0	--
Other New Hampshire	56	593	11	54 ± 0.9	0	
Massachusetts Hospitals	44	552	13		Unknown	
VA - Northhampton	0	0	--			
Franklin County Medical Center	15	233	16			
North Adams	13	136	10			
Baystate Medical Center	0	0	--			
Other Massachusetts Hospitals	16	183	11			
New York Hospitals	Unknown	Unknown	--		Unknown	

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Table A-3
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1992

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	3,515	77,271	22	2,507 ± 17		
Vermont State Hospital	401	35,130	88	349	104 ± 7	30%
Brattleboro Retreat	256	5,538	22	215	57 ± 4	27%
VA - White River Junction	235	5,389	23	164 ± 2	28 ± 4	17%
Vermont General Hospitals	2,020	22,287	11	1,609 ± 12	179 ± 14	11%
Fletcher Allen	734	10,673	15	612 ± 5	116 ± 10	19%
Central Vermont Medical Center	304	2,861	9	248 ± 2	73 ± 5	30%
Rutland	325	3,009	9	269 ± 2	42 ± 4	16%
Southwest Vermont	168	1,804	11	138 ± 2	19 ± 3	14%
Springfield	175	1,681	10	136 ± 2	43 ± 3	32%
Northeast VT	118	956	8	108 ± 1	19 ± 3	18%
Northwestern	34	537	16	30 ± 0.6	4 ± 0.2	13%
North Country	47	179	4	47 ± 0.7	15 ± 1	31%
Mt. Ascutney	21	120	6	19 ± 0.5	3 ± 0.2	16%
Brattleboro Memorial	36	177	5	34 ± 0.7	3 ± 0.7	9%
Copley	28	154	6	26 ± 0.6	11 ± 0.4	42%
Porter	8	61	8	7 ± 0.3	3 ± 0.2	43%
Gifford	16	57	4	16 ± 0.4	3 ± 0.3	19%
Grace Cottage	6	18	3	6 ± 0.3	1 ± <.1	17%
New Hampshire General Hospitals	504	7,070	14	386 ± 3	70 ± 7	18%
Mary Hitchcock	425	5,812	14	318 ± 3	59 ± 6	19%
Cheshire Hospital	49	902	18	43 ± 0.9	11 ± 1	25%
Valley Regional	13	215	17	11 ± 0.4	4 ± 0.7	36%
Weeks	5	12	2	5 ± 0.2	0	0%
Monadnock Community	0	0	--	0	0	--
Other New Hampshire Hospitals	12	129	11	12 ± 0.3	0	0%
Massachusetts Hospitals	99	1,857	19		Unknown	
VA - Northhampton	31	825	27			
Franklin County Medical Center	28	395	14			
North Adams	9	65	7			
Baystate Medical Center	0	0	--			
Other Massachusetts Hospitals	31	572	18			
New York Hospitals	Unknown	Unknown	--		Unknown	

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Table A-4
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1993

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>People Served</u>	<u>Unduplicated Count of</u>	
					<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	3,846	73,957	19	2,620 ± 18		
Vermont State Hospital	382	31,602	83	323	114 ± 6	35%
Brattleboro Retreat	346	7,265	21	267	69 ± 5	26%
VA - White River Junction	241	3,474	14	187 ± 2	19 ± 4	10%
Vermont General Hospitals	2,069	21,291	10	1,589 ± 11	195 ± 15	12%
Fletcher Allen	801	10,880	14	645 ± 5	128 ± 10	20%
Central Vermont Medical Center	319	2,988	9	239 ± 2	58 ± 5	24%
Rutland	267	2,626	10	214 ± 2	24 ± 4	11%
Southwest Vermont	177	1,573	9	147 ± 2	25 ± 3	17%
Springfield	214	1,651	8	154 ± 2	44 ± 3	29%
Northeast VT	109	567	5	95 ± 1	17 ± 2	18%
Northwestern	29	221	8	23 ± 0.5	1 ± <.1	4%
North Country	65	265	4	57 ± 0.9	21 ± 2	36%
Mt. Ascutney	5	26	5	5 ± 0.2	2 ± 0.2	40%
Brattleboro Memorial	20	159	8	19 ± 0.5	5 ± 0.9	25%
Copley	26	111	4	23 ± 0.5	3 ± 0.2	13%
Porter	11	150	14	11 ± 0.3	2 ± 0.2	18%
Gifford	13	39	3	11 ± 0.3	4 ± 0.2	36%
Grace Cottage	13	35	3	12 ± 0.3	1 ± <.1	8%
New Hampshire General Hospitals	662	8,861	13	495 ± 4	95 ± 9	19%
Mary Hitchcock	502	6,367	13	370 ± 3	67 ± 8	18%
Cheshire Hospital	83	1,778	21	75 ± 1.5	22 ± 3	30%
Valley Regional	60	588	10	50 ± 0.8	29 ± 1	58%
Weeks	5	32	6	3 ± 0.2	0	0%
Monadnock Community	0	0	--	0	0	--
Other New Hampshire Hospitals	12	96	8	12 ± 0.3	0	0%
Massachusetts Hospitals	116	1,178	10		Unknown	
VA - Northhampton	34	359	11			
Franklin County Medical Center	17	144	8			
North Adams	25	162	6			
Baystate Medical Center	6	81	14			
Other Massachusetts Hospitals	34	432	13			
New York Hospitals	30	286	10		Unknown	

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Table A-5
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1994

Hospital	Episodes of Hospitalization	Patient Days	Average Length of Stay	People Served	Unduplicated Count of	
					People Served in Other Facilities	
					Number	Percent
Total	4,114	71,162	17	2,776 ± 20		
Vermont State Hospital	405	27,778	69	344	100 ± 7	29%
Brattleboro Retreat	377	7,589	20	296	79 ± 5	27%
VA - White River Junction	260	3,792	15	192 ± 3	30 ± 6	16%
Vermont General Hospitals	2,231	20,962	9	1,652 ± 12	217 ± 16	13%
Fletcher Allen	880	10,376	12	683 ± 6	126 ± 11	18%
Central Vermont Medical Center	357	3,103	9	252 ± 2	64 ± 5	25%
Rutland	278	2,526	9	219 ± 2	32 ± 4	15%
Southwest Vermont	214	2,005	9	176 ± 2	35 ± 3	20%
Springfield	266	1,910	7	187 ± 2	61 ± 5	33%
Northeast VT	53	315	6	49 ± 0.8	12 ± 1	24%
Northwestern	27	163	6	26 ± 0.5	7 ± 0.3	27%
North Country	73	194	3	57 ± 0.9	20 ± 2	36%
Mt. Ascutney	7	23	3	7 ± 0.3	2 ± 0.2	29%
Brattleboro Memorial	29	170	6	26 ± 0.5	9 ± 0.3	35%
Copley	9	40	4	9 ± 0.3	2 ± 0.2	22%
Porter	10	53	5	10 ± 0.3	2 ± 0.2	20%
Gifford	14	48	3	13 ± 0.4	1 ± <.1	8%
Grace Cottage	14	36	3	12 ± 0.4	2 ± 0.6	16%
New Hampshire General Hospitals	703	8,489	12	558 ± 5	107 ± 10	19%
Mary Hitchcock	506	6,069	12	384 ± 3	77 ± 8	20%
Cheshire Hospital	104	1,607	15	100 ± 2	16 ± 3	16%
Valley Regional	71	629	9	56 ± 1.0	26 ± 2	46%
Weeks	5	18	4	5 ± 0.2	1 ± <.1	20%
Monadnock Community	5	75	15	5 ± 0.2	1 ± <.1	20%
Other New Hampshire Hospitals	12	91	8	17 ± 0.4	0	0%
Massachusetts Hospitals	103	2,183	21		Unknown	
VA - Northhampton	41	1,358	33			
Franklin County Medical Center	6	48	8			
North Adams	21	172	8			
Baystate Medical Center	4	50	13			
Other Massachusetts Hospitals	31	555	18			
New York Hospitals	35	369	11		Unknown	

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Table A-6
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1995

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,194	68,261	16	2,744 ± 19		
Vermont State Hospital	381	27,059	71	330	111 ± 7	34%
Brattleboro Retreat	519	9,735	19	421	122 ± 7	29%
VA - White River Junction	254	3,667	14	200 ± 3	29 ± 5	14%
Vermont General Hospitals	2,142	19,498	9	1,568 ± 12	240 ± 16	15%
Fletcher Allen	822	9,430	11	627 ± 5	119 ± 11	19%
Central Vermont Medical Center	305	3,231	11	236 ± 2	72 ± 5	30%
Rutland	302	2,681	9	227 ± 2	44 ± 5	19%
Southwest Vermont	214	1,417	7	166 ± 2	23 ± 4	14%
Springfield	312	2,050	7	210 ± 2	70 ± 6	33%
Northeast VT	37	151	4	34 ± 0.7	10 ± 0.9	29%
Northwestern	14	67	5	13 ± 0.4	2 ± 0.2	15%
North Country	55	144	3	50 ± 0.8	14 ± 0.8	28%
Mt. Ascutney	10	33	3	8 ± 0.3	3 ± 0.2	38%
Brattleboro Memorial	18	85	5	18 ± 0.5	8 ± 0.9	44%
Copley	22	106	5	20 ± 0.5	3 ± 0.2	15%
Porter	13	41	3	11 ± 0.3	4 ± 0.2	36%
Gifford	6	18	3	5 ± 0.2	2 ± 0.2	40%
Grace Cottage	12	44	4	12 ± 0.3	2 ± 0.2	17%
New Hampshire General Hospitals	730	6,047	8	546 ± 5	130 ± 10	24%
Mary Hitchcock	554	4,296	8	402 ± 4	110 ± 8	27%
Cheshire Hospital	105	1,304	12	102 ± 2	28 ± 4	28%
Valley Regional	40	229	6	32 ± 0.6	16 ± 0.4	50%
Weeks	3	10	3	2 ± 0.2	2 ± 0.2	100%
Monadnock Community	7	116	17	7 ± 0.3	0	0%
Other New Hampshire Hospitals	21	92	4	26 ± 0.5	0	0%
Massachusetts Hospitals	103	1,600	16		Unknown	
VA - Northhampton	35	957	27			
Franklin County Medical Center	9	69	8			
North Adams	17	146	9			
Baystate Medical Center	4	40	10			
Other Massachusetts Hospitals	38	388	10			
New York Hospitals	65	655	10		Unknown	

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Table A-7
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1996

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total	4,528	64,919	14	2,919 ± 20	--	
Vermont State Hospital	354	23,452	66	289	101 ± 6	35%
Brattleboro Retreat	639	12,373	19	486	127 ± 8	26%
VA - White River Junction	236	3,086	13	182 ± 3	20 ± 4	11%
Vermont General Hospitals	2,514	20,034	8	1,781 ± 13	236 ± 16	13%
Fletcher Allen	886	8,803	10	686 ± 6	135 ± 12	20%
Central Vermont Medical Center	488	4,601	9	315 ± 3	68 ± 6	22%
Rutland	307	2,404	8	231 ± 2	45 ± 5	19%
Southwest Vermont	246	1,212	5	201 ± 2	37 ± 4	19%
Springfield	373	2,029	5	259 ± 3	83 ± 7	32%
Northeast VT	37	109	3	35 ± 0.6	8 ± 1	22%
Northwestern	38	358	9	32 ± 0.6	8 ± 1	24%
North Country	46	124	3	42 ± 0.8	13 ± 2	30%
Mt. Ascutney	8	40	5	7 ± 0.3	4 ± 0.2	57%
Brattleboro Memorial	33	164	5	29 ± 0.6	8 ± 0.3	28%
Copley	31	101	3	24 ± 0.5	7 ± 1.0	28%
Porter	10	56	6	10 ± 0.3	4 ± 0.4	40%
Gifford	2	5	3	2 ± 0.1	1 ± 0.1	50%
Grace Cottage	9	28	3	8 ± 0.3	2 ± 0.1	25%
New Hampshire General Hospitals	679	4,968	7	480 ± 4	116 ± 9	24%
Mary Hitchcock	530	3,490	7	358 ± 3	102 ± 8	28%
Cheshire Hospital	104	1,152	11	94 ± 2	21 ± 3	22%
Valley Regional	23	137	6	18 ± 0.4	10 ± 0.3	56%
Weeks	5	11	2	4 ± 0.2	0	0%
Monadnock Community	6	113	19	6 ± 0.3	1 ± 0.1	17%
Other New Hampshire Hospitals	11	65	6	17 ± 0.4	0	0%
Massachusetts Hospitals	87	869	10	Unknown		
VA - Northhampton	18	175	10			
Franklin County Medical Center	15	163	11			
North Adams	12	101	8			
Baystate Medical Center	5	92	18			
Other Massachusetts Hospitals	37	338	9			
New York Hospitals	19	137	7	Unknown		

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Table A-8
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1997

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total				2,876 ± 20	--	
Vermont State Hospital	380	23,827	63	314	129 ± 7	41%
Brattleboro Retreat				536	130 ± 7	24%
VA - White River Junction	236	1,850	8	146 ± 2	25 ± 3	17%
Vermont General Hospitals	2,576	19,781	8	1,775 ± 13	260 ± 14	15%
Fletcher Allen	853	8,355	10	666 ± 6	142 ± 12	21%
Central Vermont Medical Center	640	5,630	9	429 ± 4	97 ± 8	23%
Rutland	329	1,955	6	250 ± 2	48 ± 6	19%
Southwest Vermont	114	525	5	96 ± 1	21 ± 2	22%
Springfield	477	2,704	6	292 ± 3	104 ± 7	36%
Northeast VT	11	32	3	9 ± 0.3	4 ± 0.2	44%
Northwestern	21	91	4	20 ± 0.4	6 ± 0.5	30%
North Country	46	129	3	40 ± 0.6	12 ± 1	30%
Mt. Ascutney	4	9	2	4 ± 0.2	1 ± 0.1	25%
Brattleboro Memorial	26	129	5	25 ± 0.5	13 ± 0.3	52%
Copley	18	71	4	17 ± 0.4	5 ± 0.2	29%
Porter	12	69	6	10 ± 0.3	1 ± 0.1	10%
Gifford	10	39	4	9 ± 0.3	2 ± 0.4	22%
Grace Cottage	15	43	3	14 ± 0.4	2 ± 0.1	14%
New Hampshire General Hospitals	482	2,990	6	374 ± 4	83 ± 6	22%
Mary Hitchcock	371	2,173	6	272 ± 3	67 ± 5	25%
Cheshire Hospital	76	652	9	75 ± 2	18 ± 3	24%
Valley Regional	13	60	5	11 ± 0.3	4 ± 0.2	36%
Weeks	1	2	2	1 ± 0.1	0	0%
Monadnock Community	4	45	11	4 ± 0.2	1 ± 0.1	25%
Other New Hampshire Hospitals	11	44	4	10 ± 0.3	4 ± 0.5	40%
Massachusetts Hospitals	86	1,133	13	Unknown		
VA - Northhampton	21	464	22			
Franklin County Medical Center	7	53	8			
North Adams	20	107	5			
Baystate Medical Center	2	10	5			
Other Massachusetts Hospitals	36	499	14			
New York Hospitals	20	216	11	Unknown		

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Table A-9
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1998

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total				2,855 ± 20	--	
Vermont State Hospital	309	19,961	65	270	98 ± 6	36%
Brattleboro Retreat	761	10,635	14	485	134 ± 8	28%
VA - White River Junction	236	1,484	6	141 ± 2	20 ± 3	14%
Vermont General Hospitals	2,451	18,114	7	1,717 ± 12	230 ± 16	13%
Fletcher Allen	766	7,699	10	588 ± 5	122 ± 11	21%
Central Vermont Medical Center	440	3,726	8	340 ± 4	68 ± 7	20%
Rutland	534	2,669	5	401 ± 3	67 ± 8	17%
Southwest Vermont	37	140	4	35 ± 1	4 ± 0.2	11%
Springfield	536	3,354	6	324 ± 4	106 ± 7	33%
Northeast VT	13	32	2	12 ± 0.3	3 ± 0.2	25%
Northwestern	9	32	4	8 ± 0.3	5 ± 1	63%
North Country	35	133	4	29 ± 0.5	6 ± 1	21%
Mt. Ascutney	2	5	3	1 ± 0.1	1 ± 0.1	100%
Brattleboro Memorial	19	85	4	19 ± 0.4	4 ± 0.4	21%
Copley	32	116	4	29 ± 0.5	7 ± 1	24%
Porter	13	70	5	13 ± 0.3	5 ± 0.2	38%
Gifford	3	17	6	3 ± 0.2	1 ± 0.1	33%
Grace Cottage	12	36	3	11 ± 0.3	5 ± 0.2	45%
New Hampshire General Hospitals	500	2,821	6	395 ± 3	85 ± 6	22%
Mary Hitchcock	379	1,963	5	292 ± 3	69 ± 7	24%
Cheshire Hospital	96	668	7	82 ± 2	15 ± 2	18%
Valley Regional	8	23	3	8 ± 0.3	2 ± 0.1	25%
Weeks	1	6	6	1 ± 0.1	1 ± 0.1	100%
Monadnock Community	7	87	12	6 ± 0.2	2 ± 0.1	33%
Other New Hampshire Hospitals	9	74	8	9 ± 0.3	3 ± 0.2	33%
Massachusetts Hospitals	98	1,160	12	Unknown		
VA - Northhampton	20	335	17			
Franklin County Medical Center	1	11	11			
North Adams	29	327	11			
Baystate Medical Center	5	175	35			
Other Massachusetts Hospitals	43	312	7			
New York Hospitals	27	373	14	Unknown		

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. New York hospital data not available prior to 1993.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The 'total served' by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

Other New Hampshire Hospitals include Alice Peck, Catholic, Androscoggin, Cottage, Elliot, Littleton, Upper CT Valley, Lakes Region, St. Josephs, Frisbie, Nashua Memorial, Parkland, and N. Conway Memorial. Other Massachusetts Hospitals include Berkshire, VA-Boston, Children's, NE Deaconess, VA-Brockton/West Roxbury, Colley-Dickenson, Mass General, Beth Israel, Lahey Clinic, Brigham and Women, NE Medical Center, U-Mass Medical Center, and other Mass hospitals. New York Hospitals include Albany, Samaritan, Leonard, Champlain Valley, Glens Falls, St Peters, United, Moses-Ludington, and other New York hospitals.

Table A-10
Detail by Hospital
Vermont Residents Receiving
Inpatient Behavioral Health Care, 1999

<u>Hospital</u>	<u>Episodes of Hospitalization</u>	<u>Patient Days</u>	<u>Average Length of Stay</u>	<u>Unduplicated Count of</u>		
				<u>People Served</u>	<u>People Served in Other Facilities</u>	
					<u>Number</u>	<u>Percent</u>
Total				2,910 ± 20	--	
Vermont State Hospital	293	19,815	68	265	117 ± 6	36%
Brattleboro Retreat	712	8,782	12	559	117 ± 9	28%
VA - White River Junction	255	1,493	6	147 ± 2	28 ± 5	14%
Vermont General Hospitals	2,586	20,054	8	1,816 ± 13	241 ± 16	13%
Fletcher Allen	719	8,476	12	566 ± 5	134 ± 10	24%
Central Vermont Medical Center	492	3,738	8	371 ± 3	102 ± 8	27%
Rutland	644	3,156	5	474 ± 4	96 ± 10	20%
Southwest Vermont	34	131	4	32 ± 1	9 ± 1	28%
Springfield	558	4,042	7	390 ± 4	122 ± 9	31%
Northeast VT	15	69	5	15 ± 0.4	4 ± 0.4	27%
Northwestern	12	42	4	12 ± 0.4	2 ± 0.1	17%
North Country	51	155	3	43 ± 1	14 ± 1	33%
Mt. Ascutney	2	5	3	2 ± 0.2	1 ± 0.1	50%
Brattleboro Memorial	19	69	4	18 ± 0.5	9 ± 1	50%
Copley	17	81	5	17 ± 0.5	6 ± 0.3	35%
Porter	8	26	3	8 ± 0.3	2 ± 0.1	25%
Gifford	9	45	5	9 ± 0.3	0 ± 0.0	0%
Grace Cottage	6	19	3	6 ± 0.3	0 ± 0.0	0%
New Hampshire General Hospitals	503	3,099	6	379 ± 3	81 ± 7	22%
Mary Hitchcock	366	2,308	6	268 ± 3	67 ± 6	25%
Cheshire Hospital	112	680	6	94 ± 2	18 ± 3	19%
Valley Regional	7	27	4	6 ± 0.3	0 ± 0.0	0%
Weeks	0	0	0	0 ±	0 ±	-
Monadnock Community	4	37	9	1 ± 0.1	0 ± 0.0	0%
Other New Hampshire Hospitals	14	47	3	13 ± 0.4	1 ± 0.1	8%
Massachusetts Hospitals	89	898	10	Unknown		
VA - Northhampton	28	421	15			
Franklin County Medical Center	2	6	3			
North Adams	28	261	9			
Baystate Medical Center	3	20	7			
Other Massachusetts Hospitals	28	190	7			
New York Hospitals	15	230	15	Unknown		

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. New York hospital data not available prior to 1993.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Summary data for Vermont general hospitals and New Hampshire general hospitals describe the categories as a whole. The 'total served' by each category is less than the sum of the individual facilities because some patients are served by more than one facility in the same category. The total number of people "also served in other facilities" is less than the sum of the numbers for the individual facilities for the same reason.

Other New Hampshire Hospitals include Alice Peck, Catholic, Androscoggin, Cottage, Elliot, Littleton, Upper CT Valley, Lakes Region, St. Josephs, Frisbie, Nashua Memorial, Parkland, and N. Conway Memorial. Other Massachusetts Hospitals include Berkshire, VA-Boston, Children's, NE Deaconess, VA-Brockton/West Roxbury, Colley-Dickenson, Mass General, Beth Israel, Lahey Clinic, Brigham and Women, NE Medical Center, U-Mass Medical Center, and other Mass hospitals. New York Hospitals include Albany, Samaritan, Leonard, Champlain Valley, Glens Falls, St Peters, United, Moses-Ludington, and other New York hospitals.

APPENDIX B

Caseload Overlap

Table B-1
Caseload Overlap: 1990
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,672 \pm 12	215 \pm 14	13%
Vermont State Hospital	413	128 \pm 7	31%
Brattleboro Retreat	204	42 \pm 4	21%
Veterans Administration	171 \pm 2	16 \pm 4	9%
New Hampshire Hospitals	374 \pm 3	82 \pm 7	22%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		118 \pm 7	34 \pm 4	12 \pm 3	74 \pm 6
Vermont State Hospital	118 \pm 7		7 \pm 1	5 \pm 1	15 \pm 2
Brattleboro Retreat	34 \pm 4	7 \pm 1		1 \pm <.5	8 \pm 1
Veterans Administration	12 \pm 3	5 \pm 1	1 \pm <1		1 \pm <.1
New Hampshire Hospitals	74 \pm 6	15 \pm 2	8 \pm 1	1 \pm <.1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		7% \pm <.1%	2% \pm <.1%	1% \pm <.1%	4% \pm <.1%
Vermont State Hospital	29% \pm 2%		2% \pm 2%	1% \pm 2%	4% \pm 2%
Brattleboro Retreat	17% \pm 2%	3% \pm 2%		0% \pm 2%	4% \pm 2%
Veterans Administration	7% \pm 2%	3% \pm 2%	1% \pm 2%		1% \pm 2%
New Hampshire Hospitals	20% \pm 2%	4% \pm 2%	2% \pm 2%	0% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table B-2
Caseload Overlap: 1991
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,596 \pm 11	205 \pm 15	13%
Vermont State Hospital	427	139 \pm 8	33%
Brattleboro Retreat	212	44 \pm 4	21%
Veterans Administration	174 \pm 2	24 \pm 5	14%
New Hampshire Hospitals	410 \pm 3	88 \pm 8	22%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		120 \pm 8	30 \pm 4	13 \pm 3	71 \pm 7
Vermont State Hospital	120 \pm 8		15 \pm 2	11 \pm 2	19 \pm 3
Brattleboro Retreat	30 \pm 4	15 \pm 2		0 \pm 0	12 \pm 2
Veterans Administration	13 \pm 3	11 \pm 2	0 \pm 0		4 \pm 1
New Hampshire Hospitals	71 \pm 7	19 \pm 3	12 \pm 2	4 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		8% \pm < .1%	2% \pm < .1%	1% \pm < .1%	4% \pm < .1%
Vermont State Hospital	28% \pm 2%		3% \pm 2%	3% \pm 2%	4% \pm 2%
Brattleboro Retreat	14% \pm 2%	7% \pm 2%		0% \pm 2%	6% \pm 2%
Veterans Administration	8% \pm 2%	7% \pm 2%	0% \pm 2%		2% \pm 2%
New Hampshire Hospitals	17% \pm 2%	5% \pm 2%	3% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table B-3
Caseload Overlap: 1992
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,609 \pm 12	179 \pm 14	11%
Vermont State Hospital	349	104 \pm 7	30%
Brattleboro Retreat	215	57 \pm 4	27%
Veterans Administration	164 \pm 2	28 \pm 4	17%
New Hampshire Hospitals	386 \pm 3	70 \pm 7	18%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		87 \pm 7	46 \pm 4	17 \pm 3	56 \pm 6
Vermont State Hospital	87 \pm 7		12 \pm 1	9 \pm 2	14 \pm 2
Brattleboro Retreat	46 \pm 4	12 \pm 1		2 \pm 0.2	15 \pm 1
Veterans Administration	17 \pm 3	9 \pm 2	2 \pm 0.2		4 \pm 0.9
New Hampshire Hospitals	56 \pm 6	14 \pm 2	15 \pm 1	4 \pm 0.9	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		5% \pm < .1%	3% \pm < .1%	1% \pm < .1%	3% \pm < .1%
Vermont State Hospital	25% \pm 2%		3% \pm 2%	2% \pm 2%	4% \pm 2%
Brattleboro Retreat	21% \pm 2%	6% \pm 2%		1% \pm 2%	7% \pm 2%
Veterans Administration	10% \pm 2%	5% \pm 2%	1% \pm 2%		2% \pm 2%
New Hampshire Hospitals	15% \pm 2%	4% \pm 2%	4% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table B-4
Caseload Overlap: 1993
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,589 \pm 11	195 \pm 15	12%
Vermont State Hospital	323	114 \pm 6	35%
Brattleboro Retreat	267	69 \pm 5	26%
Veterans Administration	187 \pm 2	19 \pm 4	10%
New Hampshire Hospitals	495 \pm 4	95 \pm 9	19%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		107 \pm 6	39 \pm 4	10 \pm 3	66 \pm 7
Vermont State Hospital	107 \pm 6		9 \pm 1	5 \pm 0.6	13 \pm 2
Brattleboro Retreat	39 \pm 4	9 \pm 1		2 \pm 0.6	33 \pm 3
Veterans Administration	10 \pm 3	5 \pm 0.6	2 \pm 0.6		4 \pm 0.8
New Hampshire Hospitals	66 \pm 7	13 \pm 2	33 \pm 3	4 \pm 0.8	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		7% \pm < .1%	2% \pm < .1%	1% \pm < .1%	4% \pm < .1%
Vermont State Hospital	33% \pm 2%		3% \pm 2%	2% \pm 2%	4% \pm 2%
Brattleboro Retreat	15% \pm 2%	3% \pm 2%		1% \pm 2%	12% \pm 2%
Veterans Administration	6% \pm 2%	3% \pm 2%	1% \pm 2%		2% \pm 2%
New Hampshire Hospitals	13% \pm 1%	3% \pm 1%	7% \pm 1%	1% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

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Table B-5
Caseload Overlap: 1994
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,652 \pm 12	217 \pm 16	13%
Vermont State Hospital	344	100 \pm 7	29%
Brattleboro Retreat	296	79 \pm 5	27%
Veterans Administration	192 \pm 3	30 \pm 6	16%
New Hampshire Hospitals	558 \pm 5	107 \pm 10	19%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		93 \pm 7	51 \pm 4	17 \pm 4	84 \pm 8
Vermont State Hospital	93 \pm 7		11 \pm 2	6 \pm 1	10 \pm 2
Brattleboro Retreat	51 \pm 4	11 \pm 2		6 \pm 1	24 \pm 3
Veterans Administration	17 \pm 4	6 \pm 1	6 \pm 1		8 \pm 2
New Hampshire Hospitals	84 \pm 8	10 \pm 2	24 \pm 3	8 \pm 2	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		6% \pm < .1%	3% \pm < .1%	1% \pm < .1%	5% \pm < .1%
Vermont State Hospital	27% \pm 2%		3% \pm 2%	2% \pm 2%	3% \pm 2%
Brattleboro Retreat	17% \pm 1%	4% \pm 1%		2% \pm 1%	8% \pm 1%
Veterans Administration	9% \pm 2%	3% \pm 2%	3% \pm 2%		4% \pm 2%
New Hampshire Hospitals	15% \pm 2%	2% \pm 2%	4% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table B-6
Caseload Overlap: 1995
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,568 \pm 12	240 \pm 16	15%
Vermont State Hospital	330	111 \pm 7	34%
Brattleboro Retreat	421	122 \pm 7	29%
Veterans Administration	200 \pm 3	29 \pm 5	14%
New Hampshire Hospitals	546 \pm 5	130 \pm 10	24%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		93 \pm 7	82 \pm 6	16 \pm 4	93 \pm 8
Vermont State Hospital	93 \pm 7		20 \pm 3	8 \pm 1	19 \pm 3
Brattleboro Retreat	82 \pm 6	20 \pm 3		7 \pm 1	43 \pm 4
Veterans Administration	16 \pm 4	8 \pm 1	7 \pm 1		4 \pm 1
New Hampshire Hospitals	93 \pm 8	19 \pm 3	43 \pm 4	4 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		6% \pm < .1%	5% \pm < .1%	1% \pm < .1%	6% \pm < .1%
Vermont State Hospital	28% \pm 2%		6% \pm 2%	2% \pm 2%	6% \pm 2%
Brattleboro Retreat	20% \pm 1%	5% \pm 1%		2% \pm 1%	10% \pm 1%
Veterans Administration	8% \pm 2%	4% \pm 2%	3% \pm 2%		2% \pm 2%
New Hampshire Hospitals	17% \pm 1%	3% \pm 1%	8% \pm 1%	1% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table B-7
Caseload Overlap: 1996
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,781 \pm 13	236 \pm 16	13%
Vermont State Hospital	289	101 \pm 6	35%
Brattleboro Retreat	486	127 \pm 8	26%
Veterans Administration	182 \pm 3	20 \pm 4	11%
New Hampshire Hospitals	480 \pm 4	116 \pm 9	24%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		82 \pm 5	92 \pm 6	14 \pm 3	87 \pm 8
Vermont State Hospital	82 \pm 5		20 \pm 2	7 \pm 0.7	11 \pm 2
Brattleboro Retreat	92 \pm 6	20 \pm 2		2 \pm 1	38 \pm 4
Veterans Administration	14 \pm 3	7 \pm 0.7	2 \pm 1		4 \pm 1
New Hampshire Hospitals	87 \pm 8	11 \pm 2	38 \pm 4	4 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		5% \pm < .1%	5% \pm < .1%	1% \pm < .1%	5% \pm < .1%
Vermont State Hospital	28% \pm 2%		7% \pm 2%	2% \pm 2%	4% \pm 2%
Brattleboro Retreat	19% \pm 1%	4% \pm 1%		0% \pm 1%	8% \pm 1%
Veterans Administration	8% \pm 2%	4% \pm 2%	1% \pm 2%		2% \pm 2%
New Hampshire Hospitals	18% \pm 2%	2% \pm 2%	8% \pm 2%	1% \pm 2%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table B-8
Caseload Overlap: 1997
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,775 \pm 13	260 \pm 14	15%
Vermont State Hospital	314	129 \pm 7	41%
Brattleboro Retreat	536	130 \pm 7	24%
Veterans Administration	146 \pm 2	25 \pm 3	17%
New Hampshire Hospitals	374 \pm 4	83 \pm	22%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		109 \pm 6	99 \pm 7	14 \pm 2	67 \pm 5
Vermont State Hospital	109 \pm 6		19 \pm 3	10 \pm 1	7 \pm 1
Brattleboro Retreat	99 \pm 7	19 \pm 3		3 \pm 1	26 \pm 3
Veterans Administration	14 \pm 2	10 \pm 1.4	3 \pm 1		1 \pm 0.3
New Hampshire Hospitals	67 \pm 5	7 \pm 1	26 \pm 3	1 \pm 0	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		6% \pm < .1%	6% \pm < .1%	1% \pm < .1%	4% \pm < .1%
Vermont State Hospital	35% \pm 2%		6% \pm 2%	3% \pm 2%	2% \pm 2%
Brattleboro Retreat	18% \pm 1%	4% \pm 1%		1% \pm 1%	5% \pm 1%
Veterans Administration	10% \pm 2%	7% \pm 2%	2% \pm 2%		1% \pm 2%
New Hampshire Hospitals	18% \pm 1%	2% \pm 1%	7% \pm 1%	0% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table B-9
Caseload Overlap: 1998
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,717 \pm 12	230 \pm 16	13%
Vermont State Hospital	270	98 \pm 6	36%
Brattleboro Retreat	485	134 \pm 8	28%
Veterans Administration	141 \pm 2	20 \pm 3	14%
New Hampshire Hospitals	395 \pm 3	85 \pm 6	22%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		87 \pm 6	101 \pm 7	10 \pm 2	62 \pm 5
Vermont State Hospital	87 \pm 6		15 \pm 2	6 \pm 1	8 \pm 2
Brattleboro Retreat	101 \pm 7	15 \pm 2		7 \pm 1	32 \pm 3
Veterans Administration	10 \pm 2	6 \pm 1	7 \pm 1		0 \pm 0
New Hampshire Hospitals	62 \pm 5	8 \pm 2	32 \pm 3	0 \pm 0	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		5% \pm < .1%	6% \pm < .1%	1% \pm < .1%	4% \pm < .1%
Vermont State Hospital	32% \pm 2%		6% \pm 2%	2% \pm 2%	3% \pm 2%
Brattleboro Retreat	21% \pm 1%	3% \pm 1%		1% \pm 1%	7% \pm 1%
Veterans Administration	7% \pm 2%	4% \pm 2%	5% \pm 2%		0% \pm 2%
New Hampshire Hospitals	16% \pm 1%	2% \pm 1%	8% \pm 1%	0% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Table B-10
Caseload Overlap: 1999
 Unduplicated Number of Vermont Residents Hospitalized
 for Behavioral Health Care

People Served in More Than One Type of Facility

	Total Served	Also Served in Another Facility Type	
VT General Hospitals	1,816 \pm 13	241 \pm 16	13%
Vermont State Hospital	266	117 \pm 6	44%
Brattleboro Retreat	560	117 \pm 9	21%
Veterans Administration	147 \pm 2	28 \pm 5	19%
New Hampshire Hospitals	379 \pm 3	81 \pm 7	21%

People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		109 \pm 6	88 \pm 7	14 \pm 4	57 \pm 5
Vermont State Hospital	109 \pm 6		12 \pm 2	6 \pm 1	9 \pm 1
Brattleboro Retreat	88 \pm 7	12 \pm 2		5 \pm 1	24 \pm 4
Veterans Administration	14 \pm 4	6 \pm 1	5 \pm 1		4 \pm 1
New Hampshire Hospitals	57 \pm 5	9 \pm 1	24 \pm 4	4 \pm 1	

Percent of People Served in More Than One Type of Facility

Location of Service	Also Served by				
	VT General Hospitals	Vermont State Hospital	Brattleboro Retreat	VA Hospital WRJ	New Hampshire Hospitals
VT General Hospitals		6% \pm < .1%	5% \pm < .1%	1% \pm < .1%	3% \pm < .1%
Vermont State Hospital	41% \pm 2%		4% \pm 2%	2% \pm 2%	3% \pm 2%
Brattleboro Retreat	16% \pm 1%	2% \pm 1%		1% \pm 1%	4% \pm 1%
Veterans Administration	10% \pm 3%	4% \pm 3%	3% \pm 3%		3% \pm 3%
New Hampshire Hospitals	15% \pm 1%	2% \pm 1%	6% \pm 1%	1% \pm 1%	

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

APPENDIX C

Demographic Characteristics

Table C-1
Gender of People Hospitalized
for Behavioral Health Care
Vermont Residents: 1990 - 1999

People Served by Gender

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20
Male	1,294 ± 13	1,266 ± 13	1,190 ± 12	1,266 ± 13	1,312 ± 13	1,300 ± 13	1,411 ± 14	1,399 ± 14	1,449 ± 14	1,433 ± 14
Female	1,303 ± 12	1,304 ± 13	1,316 ± 13	1,352 ± 13	1,464 ± 14	1,444 ± 14	1,508 ± 15	1,477 ± 14	1,407 ± 14	1,478 ± 14

People Served per 100,000 Population by Gender

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	461 ± 3	454 ± 3	440 ± 3	455 ± 3	478 ± 3	469 ± 3	496 ± 3	488 ± 3	483 ± 3	490 ± 3
Male	470 ± 5	456 ± 5	426 ± 4	448 ± 4	461 ± 5	452 ± 5	487 ± 5	482 ± 5	499 ± 5	491 ± 5
Female	453 ± 4	451 ± 4	453 ± 4	461 ± 4	496 ± 5	485 ± 5	505 ± 5	494 ± 5	468 ± 5	490 ± 5

People Served by Gender and Hospital Type

Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20
Total Male	1,294 ± 13	1,266 ± 13	1,190 ± 12	1,266 ± 13	1,312 ± 13	1,300 ± 13	1,411 ± 14	1,399 ± 14	1,449 ± 14	1,433 ± 14
VT General Hospitals	715 ± 7	697 ± 7	671 ± 7	667 ± 7	678 ± 7	635 ± 7	756 ± 8	770 ± 8	787 ± 9	795 ± 9
Vermont State Hospital	271	258	211	208	217	197	179	208	198	189
Brattleboro Retreat	111	97	111	136	142	210	246	273	253	272
VA Hospital - WRJ	163 ± 2	167 ± 2	160 ± 2	177 ± 2	188 ± 3	193 ± 3	174 ± 3	137 ± 2	133 ± 2	139 ± 2
New Hampshire Hospitals	145 ± 2	160 ± 2	143 ± 2	183 ± 2	214 ± 3	215 ± 3	196 ± 2	139 ± 2	172 ± 2	163 ± 2
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Female	1,303 ± 12	1,304 ± 13	1,316 ± 13	1,352 ± 13	1,464 ± 14	1,444 ± 14	1,508 ± 15	1,477 ± 14	1,407 ± 14	1,478 ± 14
VT General Hospitals	956 ± 9	900 ± 9	938 ± 9	921 ± 9	974 ± 10	933 ± 9	1,025 ± 28	1,005 ± 10	931 ± 10	1,021 ± 10
Vermont State Hospital	142	169	138	115	127	133	110	106	72	76
Brattleboro Retreat	93	115	104	131	154	211	240	263	232	288 ^c
VA Hospital - WRJ	8 ± 0.3	7 ± 0.3	4 ± 0.2	10 ± 0.3	4 ± 0.2	7 ± 0.3	8 ± <.1	9 ± 0.3	8 ± 0.3	8 ± 0.3
New Hampshire Hospitals	229 ± 3	250 ± 3	243 ± 3	311 ± 4	344 ± 4	332 ± 4	284 ± 3	235 ± 3	223 ± 3	216 ± 3
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table C-2
Age of People Hospitalized
for Behavioral Health Care
Vermont Residents: 1990 - 1999

People Served by Age

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20
0-12	25 ± 0.7	20 ± 0.6	15 ± 0.4	16 ± 0.6	27 ± 0.8	22 ± 0.9	24 ± 0.8	38 ± 1	46 ± 1	58 ± 2
13-20	215 ± 5	198 ± 4	211 ± 5	242 ± 5	249 ± 5	319 ± 6	341 ± 7	295 ± 6	286 ± 5	352 ± 10
21-35	784 ± 11	817 ± 12	736 ± 11	814 ± 12	789 ± 11	757 ± 11	815 ± 12	777 ± 11	794 ± 11	728 ± 14
36-50	792 ± 11	764 ± 11	773 ± 11	785 ± 11	964 ± 14	898 ± 13	964 ± 14	998 ± 14	1,013 ± 14	1,100 ± 22
51-65	363 ± 5	361 ± 5	329 ± 5	322 ± 5	323 ± 5	320 ± 5	331 ± 5	346 ± 5	423 ± 5	398 ± 8
66& Older	417 ± 5	411 ± 5	443 ± 5	440 ± 5	423 ± 5	428 ± 5	444 ± 5	431 ± 5	327 ± 4	378 ± 6

People Served Per 100,000 Population by Age

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	461 ± 3	454 ± 3	440 ± 3	455 ± 3	478 ± 3	469 ± 3	496 ± 3	488 ± 3	483 ± 3	490 ± 3
0-12	24 ± 0.7	19 ± 0.5	14 ± 0.4	15 ± 0.6	26 ± 0.7	21 ± 0.8	23 ± 0.7	37 ± 1	47 ± 1	61 ± 2
13-20	326 ± 7	311 ± 7	337 ± 7	380 ± 8	392 ± 8	493 ± 10	517 ± 10	443 ± 9	424 ± 7	516 ± 15
21-35	561 ± 8	586 ± 8	530 ± 8	592 ± 8	597 ± 9	581 ± 8	637 ± 9	623 ± 9	644 ± 9	596 ± 11
36-50	661 ± 9	615 ± 9	601 ± 9	591 ± 8	693 ± 10	627 ± 9	654 ± 9	676 ± 9	675 ± 9	727 ± 15
51-65	525 ± 7	522 ± 8	471 ± 7	449 ± 7	438 ± 6	424 ± 6	432 ± 6	432 ± 6	504 ± 6	455 ± 9
66& Older	675 ± 8	652 ± 8	690 ± 8	675 ± 8	638 ± 7	646 ± 8	661 ± 7	633 ± 7	477 ± 6	548 ± 9

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

Population figures used to calculate rates were obtained from the 1990 through 1999 Vital Statistics Reports published by the Vermont Department of Health.

Table C-2 (cont'd)
Age of People Hospitalized
for Behavioral Health Care
Vermont Residents: 1990 - 1999

People Served per by Age and Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	2,596 ± 18	2,571 ± 18	2,506 ± 17	2,618 ± 18	2,776 ± 20	2,744 ± 19	2,919 ± 20	2,876 ± 20	2,855 ± 20	2,910 ± 20
Total 0-12	25 ± 1	20 ± 1	15 ± 0	16 ± 1	27 ± 1	22 ± 1	24 ± 1	38 ± 1	46 ± 1	58 ± 2
VT General Hospitals	7 ± 0.3	8 ± 0.3	7 ± 0.3	3 ± 0.2	9 ± 0.3	5 ± 0.3	6 ± 0.3	3 ± 0.2	3 ± 0.2	3 ± 0.2
Vermont State Hospital	0	0	0	0	0	0	0	0	0	0
Brattleboro Retreat	16	12	2	3	4	10	7	17	20	36
VA Hospital - WRJ	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
New Hampshire Hospitals	2 ± <.1	0 ± <	6 ± <.1	10 ± <.1	15 ± <.1	7 ± <.1	13 ± <	19 ± 1	18 ± 0.5	20 ± 1.0
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 13-20	215 ± 5	198 ± 4	211 ± 5	242 ± 5	249 ± 5	319 ± 6	341 ± 7	295 ± 6	286 ± 5	352 ± 10
VT General Hospitals	120 ± 3	108 ± 2	103 ± 2	86 ± 2	82 ± 2	98 ± 2	96 ± 3	98 ± 2	78 ± 2	91 ± 4
Vermont State Hospital	12	16	7	10	13	15	12	22	21	17
Brattleboro Retreat	55	54	55	82	84	131	165	145	110	188
VA Hospital - WRJ	0 ± 0.5	0 ± <.1	0 ± <.1	0 ± <.1	0 ± <.1	0 ± <.1	0 ± <	0 ±	0 ±	0 ± 0
New Hampshire Hospitals	39 ± <.1	38 ± <.1	59 ± <.1	87 ± <.1	95 ± <.1	110 ± <.1	96 ± <	68 ± 2	67 ± 2	74 ± 2
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 21-35	784 ± 11	817 ± 12	736 ± 11	814 ± 12	789 ± 11	757 ± 11	815 ± 12	777 ± 11	794 ± 11	728 ± 14
VT General Hospitals	534 ± 8	547 ± 8	502 ± 7	544 ± 8	512 ± 7	488 ± 7	580 ± 8	551 ± 7	546 ± 7	515 ± 10
Vermont State Hospital	167	156	137	125	132	123	104	130	103	78
Brattleboro Retreat	57	60	58	77	63	94	84	93	107	115
VA Hospital - WRJ	18 ± <.1	11 ± <.1	16 ± <.1	26 ± <.1	13 ± <.1	14 ± <.1	16 ± <	16 ± 0.5	11 ± 0.4	6 ± 0.3
New Hampshire Hospitals	106 ± 0.5	131 ± 0.3	125 ± 0.5	152 ± 0.7	160 ± 0.5	141 ± 0.5	133 ± 0.5	88 ± 2	91 ± 2	84 ± 2
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 36-50	792 ± 11	764 ± 11	773 ± 11	785 ± 11	964 ± 14	898 ± 13	964 ± 14	998 ± 14	1,013 ± 14	1,100 ± 22
VT General Hospitals	466 ± 7	440 ± 6	466 ± 7	447 ± 7	575 ± 8	507 ± 7	585 ± 8	627 ± 8	616 ± 9	721 ± 14
Vermont State Hospital	135	155	123	117	127	135	117	118	99	105
Brattleboro Retreat	47	60	67	73	93	121	126	156	152	148
VA Hospital - WRJ	90 ± <.1	81 ± <.1	72 ± <.1	82 ± <.1	106 ± <.1	103 ± <.1	102 ± <.1	77 ± 2	76 ± 2	75 ± 2
New Hampshire Hospitals	134 ± 2	121 ± 2	112 ± 2	143 ± 2	166 ± 2	166 ± 3	144 ± 2	109 ± 2	139 ± 2	119 ± 3
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 51-65	363 ± 5	361 ± 5	329 ± 5	322 ± 5	323 ± 5	320 ± 5	331 ± 5	346 ± 5	423 ± 5	398 ± 8
VT General Hospitals	245 ± 4	230 ± 3	221 ± 3	210 ± 3	194 ± 3	195 ± 3	216 ± 3	223 ± 4	219 ± 3	253 ± 5
Vermont State Hospital	61	65	49	45	48	41	44	36	40	51
Brattleboro Retreat	13	12	13	10	16	25	27	39	100	34
VA Hospital - WRJ	32 ± <.1	36 ± <.1	36 ± <.1	37 ± <.1	44 ± <.1	37 ± <.1	33 ± <.1	26 ± 0.6	34 ± 1	43 ± 1
New Hampshire Hospitals	44 ± 0.9	53 ± 1	35 ± 0.9	46 ± 1	53 ± 1	48 ± 0.9	40 ± 0.9	40 ± 1	40 ± 1	51 ± 1
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 66& Older	417 ± 5	411 ± 5	443 ± 5	440 ± 5	423 ± 5	428 ± 5	444 ± 5	431 ± 5	327 ± 4	378 ± 6
VT General Hospitals	300 ± 4	263 ± 3	311 ± 4	299 ± 4	280 ± 3	275 ± 3	299 ± 3	275 ± 4	264 ± 3	275 ± 3
Vermont State Hospital	38	36	33	26	24	16	12	16	7	15
Brattleboro Retreat	16	14	20	22	36	40	77	86	0	44
VA Hospital - WRJ	31 ± <.1	46 ± <.1	40 ± <.1	41 ± <.1	29 ± <.1	46 ± <.1	30 ± <.1	28 ± 0.6	20 ± 0.5	23 ± 1
New Hampshire Hospitals	48 ± 0.8	66 ± 1	49 ± 0.9	56 ± 0.9	68 ± 0.7	74 ± 1	53 ± 0.7	50 ± 1	40 ± 1	32 ± 1
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals). Estimates of the number of people served by Massachusetts and New York hospitals are not provided because the data is inadequate to provide probabilistic population estimates. Actual person counts are available for Brattleboro Retreat and the Vermont State Hospital.

APPENDIX D

Data Sources

Methodology

References

Data Sources

The profile of inpatient behavioral health care services provided to residents of the state of Vermont presented in this report are based on analysis of data sets from three sources: the statewide hospital discharge data sets maintained by the Vermont Department of Health, the Vermont State Hospital database maintained by the state Department of Developmental and Mental Health Services, and an extract from the database of the Brattleboro Retreat, Vermont's only private psychiatric hospital.

The statewide Hospital Discharge Data Set includes records that describe every episode of hospitalization in Vermont general hospitals and the Veterans Administration Hospital in White River Junction, as well as every episode of hospitalization of Vermonters in New Hampshire, Massachusetts, and neighboring counties of New York State. Records that describe episodes of hospitalization of Vermonters that were categorized under the Mental Health and Substance Abuse Major Diagnostic Categories (MDCs) were abstracted by Health Department staff and provided to the research team. Each record included the date of birth, gender, and zip code of the patient, the beginning and end dates that define each episode of hospitalization, a facility identifier, diagnostic codes, and Diagnostic Related Group (DRG) codes associated with each episode. The records do not include a unique patient identifier. The Hospital Discharge Data Set provided information on 31,860 episodes of hospitalization in 15 general hospitals in Vermont, 42 general hospitals in other states, and 4 veterans administration hospitals.

Data on episodes of hospitalization that occurred at the Vermont State Hospital (the state's only public psychiatric facility) were obtained from a standard State Hospital Inpatient Episode Data Set (Leginski, et. al., 1989). Records that describe every hospitalization of an adult at the state hospital during 1990 through 1999 were abstracted by the research team. This data set contains information on the date of birth, gender, and zip code of each patient, the beginning and end dates of each episode, and diagnostic codes. The Vermont State Hospital data set also includes a unique patient identifier that was used to validate the estimation procedures described below. The Vermont State Hospital data set provided information on 3,894 episodes of hospitalization that involved 1,904 unique individuals.

Data on episodes of hospitalization of Vermonters that occurred at the Brattleboro Retreat were provided to the project by that institution. Records included information on the date of birth, gender and zip code of each patient, the beginning and end dates of each episode, and diagnostic codes for all Vermont residents. (Since historical zip code information was not maintained by The Retreat, records were selected on the basis of current residence, even for discharged patients.) The Brattleboro Retreat data set also included a unique patient identifier that was used to validate the estimation procedures. The Brattleboro Retreat data set provided information on 4,756 episodes of hospitalization involving 3,028 Vermonters.

Together, these data sets provide a comprehensive accounting of the amount of inpatient behavioral health care provided to Vermonters during 1990 through 1999. The major shortcoming of this aggregation of data sets is the lack of unique client identifiers that would allow the research team to determine the number of people who were hospitalized for behavioral health care, and to determine the degree to which individuals are served in more

than one type of facility. The method of Probabilistic Population Estimation described below is designed to allow researchers and evaluators to address these and other questions about the number of people served and the number of people shared by different service sectors when these sectors do not share a common client identifier.

Methodology

Many of the patient counts presented in this report are based on Probabilistic Population Estimation, a statistical procedure that allows policy analysts and evaluators to answer two basic questions that have frequently remained unanswered because existing data sets lack unique person identifiers across organizations and service sectors. “How many people have contact with a service system?” and “How many people are served by more than one organization or service system?” The ability to provide probabilistic estimates (with known confidence intervals) of these basic parameters of service systems is particularly valuable where issues of confidentiality or organizational complexity limit the availability of unique identifiers (Pandiani, Banks, and Schacht, 1998).

Probabilistic Population Estimation is a statistical procedure derived from a solution to the classic mathematical “coupon collector problem” that was provided by Feller (1957). His problem was determining the number of randomly distributed collector cards that needed to be acquired in order to complete a set. His solution was based on the fact that the probability of adding a new card to the collection changes whenever a card is added. In the problem being addressed here, the number of unique individuals is analogous to the number of collector cards necessary to complete the set, and the number of dates of birth is analogous to the number of different collector cards in the collection.

In order to derive the estimate of the number of people represented in a data set that does not contain a unique client identifier, the complete data set was broken into smaller data subsets in which all records have the same gender and year of birth (e.g., all records for men born in 1965). The number of distinct birthdays that occurred in each data subset was counted. The number of people necessary to produce the observed number of birthdays was calculated using the following formula:

$$P_j(l_j) = \sum_{i=1}^{l_j} \frac{365}{365 - i}$$

where “ P_j ” is the population estimate for subset “ j ”, and “ l ” is the number of birthdays observed in the year. Confidence intervals for the estimate may be calculated using a similar procedure.

Estimates of the total number of people represented in the complete data set and the confidence intervals for this estimate were obtained by combining the results for every year of birth and gender cohort in the original data set. Because this procedure uses the number of dates of birth represented in a data set, not the number of records in the data set, the data set may include multiple records for individual people (e.g., event or episode records).

Unduplicated numbers of people served overall, for each service sector, and for each Vermont county were determined using Probabilistic Population Estimation. Rates of hospitalization for behavioral health care were calculated using the actual population for each year (1990 through 1999) for the state as a whole, and for each geographical region. The utilization rates for people in different age and gender categories reported in Appendix C are based on age and gender specific population estimates.

In order to probabilistically determine the number of people shared across data sets

that do not include a common person identifier, the sizes of three populations are determined and the results are compared. First, the number of people represented in each of two data sets (for instance one data set with state hospital patients and another data set with private psychiatric hospital patients) is determined. A third data set is formed by combining the two original data sets and determining the number of people represented in the combined data set.

The number of people who are shared by the two data sets is the difference between the sum of the numbers of people represented in the two original data sets and the number of people represented in the combined data set. This result occurs because the sum of the number of people represented in the two original data sets will include a double count of every person who is represented in both data sets. The number of people represented in the combined data set does not include this duplication. The difference between these two numbers is the size of the duplication between the two original data sets, the size of the caseload overlap.

When no one is represented in both data sets, the number of people represented in the combined data set is equal to the sum of the numbers of people represented in each of the original data sets; the data sets are mutually exclusive. When every person represented in the smaller of the original data sets is also represented in the larger of the two original data sets, the number of people represented in the combined data set is equal to the number of people represented in the larger of the two original data sets.

In terms of mathematical set theory (Whitehead and Russell, 1927), the intersection of two sets ($A \cap B$) is the difference between the sum of the sizes of the two sets ($A + B$) and the union of the two sets ($A \cup B$):

$$(A \cap B) = A + B - (A \cup B)$$

The information on the number of people served in multiple service sectors reported in Appendix B are based on probabilistic estimation of caseload overlap.

Probabilistic Population Estimation provides valid and reliable estimates of population size that can be used to measure treated prevalence of disorders (Banks and Pandiani, 1998) and access to care (Pandiani, Banks, and Gauvin, 1997). Probabilistic determination of caseload overlap can be used to measure service system integration (Pandiani, Banks and Schacht, 1999) among a variety of service sectors. When caseload overlap is measured over time, powerful measures of treatment outcome can be produced (Banks, Pandiani, et. al., 1998, Banks, Pandiani, et. al., 1999, Pandiani, Banks and Schacht, 2001). For more information on the method of Probabilistic Population Estimation see (Banks and Pandiani, 2001).

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